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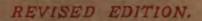
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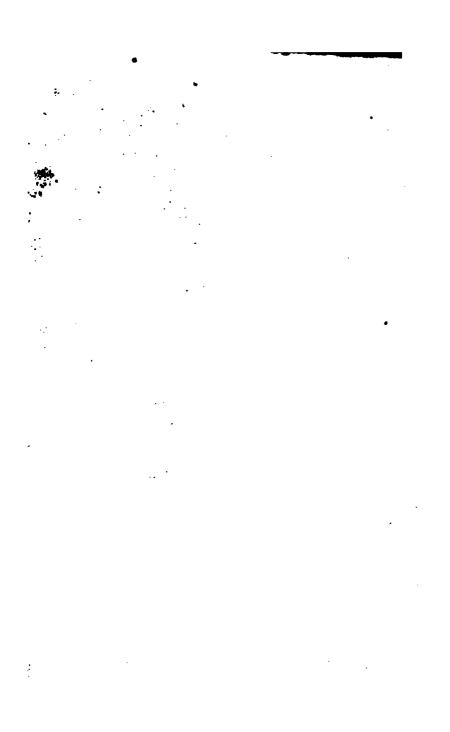
USEFUL & ENTERTAINING TRAGTS

VOLUME II.



W. & R. CHAMBERS





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CURIOSITIES OF VEGETATION-THE BANYAN-TREE,

CHAMBERS'S

MISCELLANY

OF

INSTRUCTIVE & ENTERTAINING TRACTS

Reb und Rebised Edition

VOL. II.





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sesses an interest to an insular nation like the English. Still more is this the case when the seaman, as a naval commander, achieves brilliant exploits against enemies superior in

force to himself. And still more, again, is the interest excited, when such a man sees his fair fame clouded by undeserved accusations, and fails to obtain justice until gray hairs mark the declining years of life. Such a man was the lately deceased Thomas Cochrane, Earl of Dundonald, Admiral of the Red, and Rear-admiral of the Fleet.

No. 9.

BIRTH, HOME, AND BOYHOOD.

Thomas Cochrane, born at Annsfield, in Lanarkshire, on the 14th December 1775, was descended from a very old Scottish family. He himself believed that the first Cochrane was a Scandinavian searover, who, in a remote age, settled on the shores of Renfrew and Ayr; and such a rover would certainly not have been an inapt ancestor for him. But be this as it may, there are records of the family so far back as the year 1262, as chieftains of the barony of Coveran, Cochran, or Cochrane. Robert Cochran, about four centuries ago, was a great favourite with James III. of Scotland, and by this favouritism won for himself the enmity of many Scottish nobles. A later representative of the family, William Cochrane, as a reward for mediating between Charles I. and his angry subjects in the north, was raised to the peerage in 1641, under the title of Lord Cochrane of Dundonald; and in 1669 the title was elevated to the higher one of Earl of Dundonald. The Dundonalds were powerful in Scotland during the remainder of that century, but in the following century they merely took rank among the nobility of average influence.

The subject of this sketch was the eldest son of the ninth earl; his mother was a daughter of Captain Gilthrist of the royal navy. As the patriarchal estates had nearly all left the family, owing to rebellions, forfeitures, mortgages, and other causes, Thomas inherited little beyond the chance of an earldom. His father made many attempts to resuscitate the family fortunes, by entering into commercial and manufacturing enterprises. Among these were schemes for preparing soda from common sait; for the employment of alumina as a mordant for dyers and calico-printers; for preparing British gum as a substitute for gum-Senegal in calico-printing; for the manufacture of sal-ammoniac; for producing white-lead by a new process; and for extracting tar from pit-coal. All these schemes -as well as numerous experiments on the gas produced from coal, and on the application of chemistry to agriculture—evinced considerable chemical knowledge and general intelligence; but they proved disastrous to the family in a pecuniary sense.

When it became necessary to adopt some definite mode of life, young Cochrane, through the aid of his uncle Alexander, a captain in the navy, entered into the naval service. Before this, however, an attempt was made to obtain for him a position in the army; but his dislike of the stiff martinet rules of military drill proved too strong to be surmounted. In his Autobiography, he gives an amusing account of his first and only experience as a military officer: By way of initiation into the mysteries of the military profession, I was placed under the tuition of an old sergeant, whose first lessons well accorded with his instructions, "not to pay attention to my

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foibles." My hair, cherished with boyish pride, was formally cut, and plastered back with a vile composition of candle-grease and flour; to which was added the torture incident to the cultivation of an incipient queue. My neck, from childhood open to the Lowland breeze, was encased in an inflexible leathern collar or stock, selected according to my preceptor's notions of military propriety; these almost verging on strangulation. A blue semi-military tunic, with red collar and cuffs, in imitation of the Windsor uniform, was provided; and to complete the tout ensemble, my father, who was a determined Whig partisan, insisted on my wearing yellow waistcoat and breeches-yellow being the Whig colour, of which I was admonished never to be ashamed. A more certain mode of calling into action the dormant obstinacy of a sensitive high-spirited lad could not have been devised, than that of converting him into a caricature, hateful to himself and ridiculous to others. As may be imagined, my costume was calculated to attract attention, the more so from being accompanied by a stature beyond my years. Passing one day near the Duke of Northumberland's palace at Charing Cross, I was beset by a troop of ragged boys, evidently bent on amusing themselves at the expense of my personal appearance, and in their peculiar slang indulging in comments thereon far more critical than complimentary. Stung to the quick, I made my escape from them; then rushing home, begged my father to let me go to sea with my uncle, in order to save me from the degradation of floured head, pigtail, and yellow breeches.

ENTERS THE NAVY.

At length this poor son of a poor earl, on the 27th June 1793, entered on board H.M.S. Hind at Sheerness, as midshipman, he being then in his eighteenth year. He was a stripling over six feet in height, was older than middles usually are on entering the service, was nephew to the captain of the ship, and was a lord (Lord Cochrane) to boot. These characteristics might possibly have interfered with a due obedience to discipline, were it not that he had a real love for sea-life, which rendered him willing to bend to the necessary conditions of the service. Fortunately, he was placed under a skilful though rough lieutenant, who speedily trained him to good seamanship. The Hind started on a cruise to the coast of Norway, to look out for French privateers or convoys. Once, while on this duty, in return for hospitalities received on shore, many Norwegians were invited to visit the ship; the ladies were 'whipped' or hoisted up by means of ropes and a sort of chair with ease and comfort. Unfortunately, however, there was a parrot on board who had learned most of the boatswain's calls. While one lady was being lifted in the chair, the parrot called out: 'Let go.' The seamen, thinking it was the boatswain's command, did let go; and the lady had an unexpected though temporary dip in the sea.

On returning from Norway, young Cochrane was transferred from the *Hind* to the *Thetis*, a more powerful frigate, which was placed under his uncle's command. The *Thetis* was ordered to join the squadron of Admiral Murray, sent out in 1794 to capture some of the French settlements in North America. When about nine-teen years of age, our hero was promoted by Admiral Murray to the rank of junior lieutenant; and soon afterwards he became acting-lieutenant of the *Africa*, under Captain Home. Cochrane, in his *Autobiography*, speaks of the 'dreary five years' that the squadron spent near the North American coast, capturing few prizes, and being engaged in few exciting adventures; cruising among the fogs of Newfoundland and Nova Scotia, instead of joining in the brilliant achievements that marked the maritime wars of Europe.

CRUISE IN THE MEDITERRANEAN: 1798-1801.

Towards the close of 1798, Cochrane received the appointment of junior lieutenant of the Barfleur, the flag-ship of a fleet with which Lord Keith was blockading the Mediterranean ports of Spain. This was a kind of service that at first gave slender hope for activity, seeing that the Spanish fleet shewed little tendency to quit the defensive batteries of Cadiz, and hazard a naval battle. On the 6th of May 1799, however, there was a formidable assemblage of hostile ships. A French fleet, which came quietly round to Cadiz, consisted of thirty-three sail of the line; and a Spanish fleet of twenty-two sail, in the harbour, swelled the number to fifty-five sail of the line, besides several frigates belonging to the enemy. Lord Keith had under him at the time fifteen sail of the line and one frigate. The Spaniards, however, did not come out of the harbour, and the French did not want to fight; for their purpose was to liberate the Spanish fleet from Cadiz, and accompany it to Toulon. Young Cochrane and other officers of the Barfleur burned with impatience to be 'up and doing,' to connect their names with some achievement that would bring them honour or prize-money, or both. On one occasion, when Lord Keith knew, but Earl St Vincent (his superior in the Mediterranean command) did not know, the 'whereabouts' of the French, St Vincent sent peremptory orders which Keith felt compelled to obey, although they carried him away from the very direction in which he knew the French were sailing. In June, Keith succeeded St Vincent as commander-in-chief in the Mediterranean; and Cochrane shifted with him from the Barfleur to the Queen Charlotte, a larger and finer ship. Again and again was the search for the two hostile fleets renewed: a weaker force running up and down the Mediterranean to intercept, fight, and capture two fleets of much greater strength. Now at Toulon, now at Minorca, now at Gibraltar; then at Cadiz, at Tetuan, at Carthagena—the 'big ones' were always running away from the 'little ones.' At last it became certain that they had emerged from the Mediterranean altogether, and were proceeding northward along the Portuguese coast to the Bay of Biscay. Lord Keith pursued, but had the mortification of seeing them enter safely at Brest, where he could not get at them. The whole affair was most distasteful to young officers like Cochrane, affording not the smallest opening for a brush with the enemy. Keith, foiled in his chase, went to Torbay; and while he was there, the French and Spanish fleets, stealing quietly out of Brest, sailed down again towards the Mediterranean!

Cochrane's first experience in the Mediterranean was thus anything but gratifying to him. While Keith was at Torbay, Nelson was achieving brilliant things off the Sicilian coast, and was making himself the idol of the navy. Cochrane never served under Nelson, but they conversed once at Palermo; and the former treasured up a maxim which Nelson impressed upon him in regard to naval warfare: 'Never mind manœuvres; always go at them!' This was just after Cochrane's own heart; he did 'go at them' all his life,

whenever he had an opportunity.

A more busy scene was now in store for the energetic young Scotchman. Early in 1800, Cochrane was placed in command of the Speedy sloop. If ever a man owed success to himself and his crew, and not to his vessel, such was now the case. The Speedy was a sloop of 158 tons, armed with fourteen 4-pounders, and manned, 'or rather crowded,' as he expressed it, with fifty-four officers and men. He asked for and obtained two 12-pounders, but found that his little craft was too weak to carry them. When, in his old age, the Earl of Dundonald wrote his Autobiography, he dwelt with a sort of comic affection on the little vessel which, as the young Lord Cochrane, had formed his first command nearly sixty years 'Despite her unformidable character,' he says, 'and the personal discomfort to which all on board were subjected, I was very proud of my little vessel, caring nothing for her want of accommodation, though in this respect her cabin merits passing notice. It had not so much as room for a chair, the floor being entirely occupied by a small table surrounded with lockers, answering the double purpose of store chests and seats. The difficulty was to get seated, the ceiling being only five feet high; so that the object could only be accomplished by rolling on the locker, a movement sometimes attended with unpleasant failure. The most singular discomfort, however, was that my only practicable mode of shaving consisted in removing the skylight, and putting my head through, to make a toilet-table of the quarter-deck.'

Nevertheless, in this little tub of a vessel, Cochrane did that which made the French and Spaniards very uneasy, and proportionably won for him a reputation at home. Besides boarding and searching innumerable neutral vessels, he had much fighting and some capturing. On the 10th of May he captured the *Intrépide*, a

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French privateer of six guns and forty-eight men—his first prize. On the 14th he recaptured two merchant-ships which had been seized by armed boats of the enemy. On the 16th of June he captured a small vessel off Elba; and on the 22d recaptured a prize from a French privateer. On the 25th he followed a Spanish privateer, the Assunction, of ten guns and thirty-three men, right under a fort near Bastia, attacked and captured her, and carried her off though pursued by five gun-boats. On the 9th July his boats 'cut out' a Spanish ship lying actually within the range of the guns of Cape Sebastian, and brought it away; on the 19th and 31st he captured two French privateers; and on the 3d of August he took his long

train of prizes safely into Leghorn Roads.

Far into the year 1801 did this cruise extend, and numerous were the adventures to which it led. The Speedy sailed hither and thither, capturing French and Spanish merchant-ships, privateers, and regular vessels of war, not only off the Spanish coast, but throughout the whole of the western half of the Mediterranean. Cochrane was seldom dismayed by disparity of numbers or strength. His tactics sometimes bore a laughable resemblance to those of a little man when fighting another a head taller than himself; there is a chance, in such a case, that the giant will hit over instead of at the dwarf. An instance of this kind presented itself on the 6th of May. He fell in with a large Spanish xebec frigate, the Gamo. Cochrane ran up close to it without firing a shot, although receiving two broadsides while so doing. 'To have fired our pop-gun 4-pounders at a distance,' he says, 'would have been to throw away the ammunition; but the guns being doubly, and, as I afterwards learned, trebly shotted, and being elevated, they told admirably upon her main-deck. My reason for locking our small craft in the enemy's rigging was one upon which I mainly relied for victory-namely, that, from the height of the frigate out of the water, the whole of her shot must necessarily go over our heads; while our guns, being elevated, could blow up her main-deck.' The Spaniards, not liking this state of things, made arrangements for boarding the Speedy; but Cochrane deemed it much more suitable that he should board the Spanish vessel instead. Consequently, the surgeon taking the helm, all the rest of the crew, officers and men, clambered up into the big ship. Some of the English sailors, at Cochrane's suggestion, blackened their faces, and came upon the Spaniards up the bows of the ship in such guise as to startle them by a diabolical appearance. Cochrane was particularly fond of queer devices of this kind. 'In difficult or doubtful attacks by sea, he observes, and the odds of 50 men to 320 come within this description, no device can be too minute, even if apparently absurd, provided it have the effect of diverting the enemy's attention whilst you are concentrating your own. In this and other successes against odds. I have no hesitation in saying that success in no slight degree depended on out-of-the-way devices, which the

enemy not suspecting, were in some measure thrown off their guard. The big ship was captured by the little one. Cochrane drew up the following curious balance-sheet concerning the Gamo and the Speedy:

GAMO.

Main-deck guns—
22 long 12-pounders.
Quarter-deck guns—
8 long 8-pounders,
224-pounder carronades.
Number of crew, 319.
Broadside of shot, 190 pounds.
Tonnage, 600 and upwards.

SPEEDY.

Main-deck guns—
14 4-pounders.
Quarter-deck guns—
None.

Number of crew, 54. Broadside of shot, 28 pounds. Tonnage, 158.

The killed and wounded in the *Gamo* actually exceeded in number the whole crew of the *Speedy;* and Cochrane found it no easy matter to convoy his prize, with 263 unhurt Spanish prisoners, safely to Minorca. This he did, however, and received the warm thanks of Lord Keith for his gallantry.

On another occasion during this cruise, plot and counterplot were exhibited in an amusing way. The Speedy had become known to the Spanish authorities as a mischievous and audacious little vessel. and a plan was laid to capture it. 'When off Plane Island, we were very near "catching a Tartar." Seeing a large ship inshore, having all the appearance of a well-laden merchantman, we forthwith gave chase. On nearing her, she raised her ports, which had been closed to deceive us, the act discovering a heavy broadside; a clear demonstration that we had fallen into the jaws of a formidable Spanish frigate, now crowded with men, who had before remained concealed below. That the frigate was in search of us there could be no doubt, from the deception practised. To have encountered her with our insignificant armament would have been exceedingly imprudent, while escape was out of the question; for she would have outsailed us, and could have run us down by her mere weight. There was therefore nothing left but to try the effect of a ruse, prepared beforehand for such an emergency. After receiving at Mahon (Minorca) information that unusual measures were about to be taken by the Spaniards for our capture, I had the Speedy painted in imitation of the Danish brig Clomer—the appearance of this vessel being well known on the Spanish coast. We also shipped a Danish quartermaster, taking the further precaution of providing him with the uniform of an officer of that nation. On discovering the real character of our neighbour, the Speedy hoisted Danish colours, and spoke her. At first this failed to satisfy the Spaniard, who sent a boat to board us. It was now time to bring the Danish quarter-master into play in his officer's uniform; and to add force to his explanations, we ran the quarantine flag up to the fore, calculating on the Spanish horror of the plague, then prevalent along the Barbary coast. On the boat

coming within hail—for the yellow flag effectually repressed the enemy's desire to board us—our mock-officer informed the Spaniards that we were two days from Algiers, where at the time the plague was violently raging. This was enough. The boat returned to the frigate, which, wishing us a good voyage, filled and made sail; and we did the same.' Such are the moralities of war!

During this cruise in the Mediterranean, Cochrane, sojourning at Malta for a few days, went to a fancy-ball in the dress of a common boatswain, with marline-spike and lump of grease all complete; was refused admittance; fought a duel next day in consequence; and sent a ball through the thigh of the unfortunate official whose punctilio had led to the quarrel. On another occasion he had an interview with the terrible Dey of Algiers, to expostulate with him on a matter of piracy, and had a narrow escape from losing his head for his trouble.

MADE PRISONER—QUARRELS WITH THE ADMIRALTY— GOES TO COLLEGE.

At length, after thirteen months' cruise in the Speedy, the daring young officer and his little craft came to trouble. While on the way from Minorca to Gibraltar, diving into all the nooks and corners in search of adventures, he fell in with three large men-of-war. Resistance was useless, and the throwing overboard of guns and heavy stores did not lighten the Speedy sufficiently to enable her to escape. Cochrane surrendered to Captain Pallière of the Dessaix, on the 3d of July 1801. The French had long been in search of him as a most dangerous and daring man; and they were so glad at catching him, that they treated him with the greatest possible courtesy and respect. The detention was not of long duration, for an exchange of prisoners shortly afterwards took place.

Cochrane's exploits had certainly been remarkable. In thirteen months he had captured 50 vessels, 122 guns, and 534 prisoners. Commendation had of course been awarded to him more than once; but it is worthy of remark that, throughout his Autobiography, he complains of official persons as always doing something or other injurious or unfair towards him. Earl St Vincent, after commanding in the Mediterranean, was appointed First Lord of the Admiralty; thus exchanging professional for political or governmental service. St Vincent and Keith had not been on cordial terms; Keith had been the friend of Cochrane; and the latter seems to have arrived by a sort of logic at the conclusion that the earl was unfavourable to him. Sir Alexander Cochrane, on behalf of his nephew, wrote to the earl, narrating the remarkable adventures of the Speedy, and soliciting the promotion of the young officer to the rank of captain—on the ground both of personal merit, and of the entire absence of fortune in the family. The solicited

rank was conferred on the 8th of August, a date which placed him lower in the list of captains than if the appointment had been dated from any one of the brilliant achievements which had gained him This he attributed to 'some sinister influence at work.' When Cochrane became a captain, he wrote to Earl St Vincent three or four times, soliciting promotion for a gallant fellow-officer who had served well and faithfully under him in the Speedy. In one of these letters, while combating an unfavourable reply received from the earl, the hot and eager Cochrane incautiously touched upon a matter which had been much discussed among naval men. Sir John Jervis, in 1797, had won the great battle of St Vincent, thereby earning for himself a peerage and a pension of £3000 a year. It was contended, however, among the younger spirits of the navy, that the battle was really gained by the inshore squadron under Nelson, the commander-in-chief being merely a spectator, at a distance which involved the loss of only one man in his own ship. Cochrane owned, nearly sixty years afterwards, that it was an ill-timed matter for him to have touched upon, in writing to one who had commanded at St Vincent, and who then commanded at the Admiralty. At anyrate, he settled down into a conviction that spite and not justice dictated the conduct of the officials towards 'From the receipt of that letter, Earl St Vincent became my bitter enemy; and not only he, but his successors thought it incumbent on them to perpetuate his lordship's displeasure.'

The Admiralty, wearied with Cochrane's pertinacity, and perhaps irritated at his bold language, refused to give him another ship; and thus he was forced to retire on a naval captain's half-pay. How could he, a lord too, live upon that? He must do something; and so he thought of a parliamentary career. To 'expose the Admiralty' now seemed to be the strongest motive by which he was impelled. That the Admiralty needed exposure, as a preliminary to reform, is beyond all question; but there was a personal as well as a patriotic incentive on his part. Earl St Vincent and Lord Cochrane. unpleasantly as they were placed towards each other, thought alike on one subject—the monstrous corruption that at that time pervaded all the departments of the Admiralty. Any iniquity was connived at that would buy votes to the government in the House of Commons: and thus contractors and purveyors were permitted to rob the nation to an enormous extent. The First Lord had generally been a politician; St Vincent was a seaman; he took a seaman's view of these matters, and worked hard to bring about a more healthy state of things; but the other officials thwarted him; and thus his term of service at the Admiralty was one of much discomfort to him.

Now occurred an episode in Cochrane's career highly honourable to him. He went to Edinburgh towards the close of 1802, took cheap lodgings, entered the university ('an unusual spectacle for a post-captain fresh from the quarter-deck to enter himself as a

student among boys!'), worked hard at several studies which had been neglected in his early youth, and lived on his half-pay and the remains of his prize-money—waiting for some opportunity of getting elected to parliament, or else of getting command of a ship. Among the many remarkable features in Cochrane's life, this was certainly not the least so. A captain and a lord thus living and studying as a means of rising in the world, presents a picture worthy of respect, despite any shortcomings that may have marked his character. He and Lord Palmerston attended Dugald Stewart's lectures at the same time.

SERVICES IN THE ARAB AND THE PALLAS: 1803-1806.

When the peace of Amiens was broken by renewed war with France in 1803, Lord Cochrane, thirsting for active life, applied again to the Admiralty. He met with difficulties, but at length obtained an appointment to the *Arab*. This proved to be an old collier brig, hastily purchased for any service she might be able to render. When ready, Cochrane made a cruise in the Arab round the Land's End, and then joined the Channel fleet. Bonaparte was at that time forming a flotilla of gun-boats with which to invade England, and at the same time collecting a fleet at Brest to make a feigned descent on Ireland. The Arab was found to be quite unfitted for watching the enemy at Boulogne; and Cochrane, much to his chagrin, was sent on a cruise to the Orkneys, where there was no probability of active service, and where his days wore away monotonously. His chafed spirit found utterance in such words as these: 'The Board had fairly caught me; but a more cruel order could not have been devised by official malevolence. It was literally naval exile in a tub, regardless of expense to the nation.' He clung to the notion that there was a spite against him at the Admiralty. His command of the Arab lasted from October 1803 to December 1804.

When Lord Melville succeeded Earl St Vincent at the Admiralty, he rejoiced Cochrane by placing him in command of the Pallas, a new frigate of thirty-two guns. This was the first and only occasion on which Cochrane availed himself of the system of impressment of seamen; he could not get a crew without it, just then; but he always hated the plan, as his beau ideal of a good seaman was one who would work willingly and heartily. The Pallas was sent on a short cruise to the Azores, during which it captured three Spanish merchantmen; the property found in them was very valuable, and Cochrane and his men obtained a large amount of prize-money. Among other articles were three golden candlesticks, which had been presented by the citizens of Mexico to some church in Spain, but had made the voyage across the Atlantic at an inauspicious period. Cochrane, who always had a love of oddity in his composition, stuck

these three golden candlesticks on the tops of the three masts of his ship, thereby greatly astonishing the people of Plymouth on his arrival there. Another of the captured ships contained several bales of 'pope's bulls, dispensations for eating meat on Fridays, and indulgences for peccadilloes of all kinds, with the prices affixed; these he consigned to the waves; and they probably went to the bottom instead of reaching Mexico.

Now took place Cochrane's first adventure in the political world. A general election was at hand; and he, obtaining leave of absence, became a candidate for the borough of Honiton; but as he refused to bribe, the majority of the 'worthy and independent electors' refused to vote for him; and so he lost the election. He adopted a course, however, that throws a strange light on the maxims of political morality in those days. He sent ten guineas apiece to all the electors who had voted for him, not as a bribe for something to be done, but as a reward for something that had been done.

After this electioneering freak, Cochrane returned to the Pallas, and took charge of a convoy to Quebec on the 28th May 1805. On the voyage he nearly suffered shipwreck, by being thrown 131° out of his reckoning, owing to a defect in the binnacle compass. He convoyed one fleet of merchantmen out, and another home, not much satisfied with this sleepy kind of work. He invented a ship's lamp, and told a story concerning it which shewed how rooted was his conviction that the 'people' at the Admiralty had declared perpetual war against him. He drew the attention of the authorities to his lamp, but without effect. 'Some few years afterwards, the clamour of shipowners compelled the Board to direct its attention to the subject; and, passing over my communications, they offered a reward of fifty pounds to the inventor of the most suitable for the purpose. On this, I directed my agent, Mr Brooks, to offer my lamp in his own name, feeling convinced that my connection with it would, if known, insure its rejection. He did so; and after repeated trials against others at Sheerness, Spithead, and St Helena, the fifty-pound prize was adjudged to Mr Brooks. The fact afterwards becoming known, not a lamp was ever ordered, and the merchantmen were left to the mercy of privateers, as before. I do not relate this anecdote as telling against the directing powers of the Admiralty; but with the administrative powers it was then and afterwards clearly a fixed rule that no invention of mine should be carried into effect.

Early in 1806, Cochrane was ordered to join with the Pallas the squadron of Admiral Thornborough, to cruise off the French and Spanish coasts. Here his daring made itself as conspicuous as in the Mediterranean. He was always capturing vessels of some kind or other; terrifying the enemy with the audacity of his movements. No less than three large corvettes were run ashore by their captains, to afford escape for the crews; any one of which was powerful

enough to have overcome the Pallas, if the actual number of the men on board had been known. Cochrane followed Nelson's advice to 'go at them' without manœuvring; but he interpreted manœuvring to mean fixed and formal rules of strategy; he evidently delighted in all kinds of tricks and pranks to deceive the enemy as to his strength, plans, and movements. Again does Cochrane complain of the feeling entertained towards him by officials. He reported to Thornborough, Thornborough to St Vincent, and St Vincent to the Secretary of the Admiralty. St Vincent used these words: 'The gallant and successful exertions of the Pallas reflect very high honour on her captain, officers, and crew, and call for my warmest approbation.' This appeared to Cochrane as 'cold and reluctant praise,' and produced a renewal of his old complainings. On the 15th of May he made a daring attack on a frigate and three brigs: the Minerve of forty guns, and the Lynx, Sylphe, and Palinure of sixteen guns each. He inflicted terrible injury on the enemy; but captured nothing, and had his own ship nearly knocked to pieces. Cochrane notices a curious device adopted by the British government for addressing proclamations to the French people in spite of Bonaparte. Numerous small kites were constructed, to which were attached a number of proclamations printed in the French language. Cochrane was furnished with a supply of these; and his instructions were, to append a match to the kite-string, light it, and fly the kite over the land; when the match burnt the string, the kite fell, and the proclamations found their way (possibly) into the hands of country persons. What was the practical value of this scheme, we are not told.

ENTERS PARLIAMENT-ADVOCATES REFORM OF ABUSES.

We now come to Cochrane's more decided and successful attempt to enter parliament. While the *Pallas* was being repaired after the hard knocks she had received, her captain entered the political arena. He organised a procession, himself in a coach-and-six, and numbers of his officers and men in coaches-and-four; and thus he entered to court the sweet smiles of the electors of Honiton. They remembered the gifts of ten guineas apiece, and in July 1806 they elected him as member for their borough. They then held out their hands for more gold; this he refused to give, but was in a manner compelled to provide an entertainment, which cost £1200. All this reads unpleasantly, but was thought nothing of in those days.

At length came the opportunity for which Cochrane had so long yearned—a fight with the Admiralty in the House of Commons. He made applications for Lieutenant Haswell of the Pallas, as he had before done for Lieutenant Parker of the Speedy; and as the Admiralty shewed no inclination to comply with his wishes, he threatened to bring the subject before the House of Commons. Both officers received promotion on the 15th of August, and Cochrane attributed

that to a wholesome terror of his threats; but he nevertheless complained that the promotions were not of such a kind as those officers merited.

His entry into parliament did not long interrupt his naval career. On the 23d of August 1806, he was appointed to the command of the *Impérieuse* frigate, and was allowed to take over with him his old familiar crew from the *Pallas*. The vessel was hastily fitted out for service and was sent to sea in a crank condition. As a consequence, Cochrane nearly ran ashore near Ushant, and thus nearly fell into the hands of the enemy—being unable to get the ship well under command. His office was to assist the blockading squadron then in the Basque Roads, on the western coast of France; and he was employed in little other than blockading during the remainder of the year,

returning to Plymouth early in 1807.

Another chapter in Cochrane's political career now opened. Parliament was dissolved in April, and a general election ordered. Cochrane and his Honiton friends had not worked well together; they worried him with applications for places and recommendations, while he disappointed them by giving them neither places nor money. He resolved to try for the important city of Westminster, as a means of improving his personal position, and of strengthening his advocacy of naval reform in the House of Commons. There were five candidates: Lord Cochrane, Sir Francis Burdett, Mr Sheridan, Mr Eliot, and Mr Paul. After the usual amount of electioneering tactics. Cochrane was returned at the head of the poll, and Burdett as his colleague. Cochrane afterwards said: 'I must record it to the honour of my Westminster friends, that during my long connection with them no elector ever asked me to procure for himself or relatives a place under government; whilst the multitude of applications for place from my late constituents formed, as has been said, a source of intolerable annoyance.'

He did not long delay the unfurling of his flag as a reformer. On the 7th of July he moved a resolution for the appointment of a committee, to inquire how far any members of parliament, in themselves or their relations, were interested in any 'offices, posts, places, sinecures, pensions, situations, fees, perquisites, or emoluments,' at the public expense. In his speech, although not in his resolution, he plainly expressed his belief that votes had been bought on both sides of the House at the expense of the nation. The attempt was too bold to meet with much support; but the House appointed the committee, with a less formidable duty to fulfil. Cochrane believed that from that moment he became a man unacceptable to Whigs and Tories alike in parliament, as he had long been to the Admiralty; and on the same ground-namely, their dread of the troublesome pertinacity of any one who would insist on looking behind the scenes in search of abuses, with a view to their exposure. On the 10th of July he brought forward a motion on naval abuses; dwelling forcibly

on the need of reform in the management of ships and crews, founded on occurrences which had come within his own personal observation. He found little favour with the House generally, for his motion was negatived without a division.

CRUISE IN THE IMPÉRIEUSE: 1807-1809.

Our hero still continued his curious alternation between politics and naval life—now going out to fight the French, now coming home to fight the officials. He received orders to join Lord Collingwood's fleet in the Mediterranean. He himself believed that the government hoped by that means to get rid of him from parliament; but whether such was the plan or not, the electors of Westminster retained him as their representative, giving him unlimited leave of

absence.

On the 12th September 1807, the Impérieuse sailed from Portsmouth with a convoy of thirty-eight sail of merchantmen, and then to engage in active service against the enemy. Cochrane was indefatigable, sailing hither and thither throughout the Mediterranean, but without the command of a squadron. It would be useless to detail the services he rendered, in the Mediterranean, round the coast of Spain, and back again to the Mediterranean, during the later months of 1807 and the first half of 1808. He attacked the enemy wherever he saw them, unless when greatly superior in power to himself, and captured a large number of prizes.

A change of tactics occurred in June, owing to Spain having joined England in resisting France. Now, all the operations on the Spanish coast were to be of a friendly character, so far as they affected the Spaniards. Hence commenced the gigantic PENIN-SULAR WAR, one of the greatest in which England was ever engaged. Its exact date may be set down as the 6th of June 1808, when Napoleon proclaimed his brother Joseph 'King of Spain and the Indies,' and when the Junta, or Spanish parliament, repudiated

Napoleon and Joseph alike.

Cochrane renewed his cruise in the *Impérieuse*, but this time his visits to the various towns on the Spanish coast were welcomed by the inhabitants, and he was fêted more than once at places where his guns and his prowess had shortly before been felt. Some of his operations on shore were of a remarkable kind. General Duhesme was near Barcelona with a French army; and Cochrane, whenever the slightest opportunity offered, landed his seamen and marines, and aided the Spaniards in checking the French—blocking up the roads along which they wished to pass; cutting off their supplies; and, in some instances, capturing small bodies of men with their guns. It was a sort of adventurous fighting in which he greatly delighted. Among other instances of this kind was the capture of the castle of Mongat, an important post completely commanding a pass on the

road from Gerona to Barcelona: he destroyed the castle, and took the French garrison prisoners on board his ship. Month after month were these operations continued. Cochrane was incessantly engaged on the coast of Spain, and on the French coast from thence to Marseille, harassing the French in every practicable way, capturing several prizes, and rendering himself the terror of the enemy. 'In these cruises,' he says, 'our greatest difficulty was to procure fresh water, which was only to be obtained on the enemy's coast; so that the men had frequently to be placed on short allowance. As we were now destitute of this necessary, I determined to run for the entrance of the Rhone, and fill up with water by a novel expedient. Our fore-topmast studding-sails were sewn up and converted into huge bags, nearly water-tight; these, as the water at the river's mouth was brackish, were sent in the boats higher up the stream to fill. The bags being there filled, were towed alongside the ship, and the water pumped as quickly as possible into the hold by means of the fire-engine—the operation being repeated until we had obtained a sufficient supply. Having thus replenished our water, we made an attempt to obtain fresh meat also at the enemy's expense. Whilst engaged in watering, a number of cattle had been observed grazing on the banks of the river, and a party was taken on shore to secure some. But this time circumstances were against us.

As has before been stated, when Cochrane was not engaged actively against the enemy, his thoughts recurred to the authorities at home, and his standing quarrel with them. Lord Collingwood thanked him for his singular and daring exertions on the Spanish and French coasts; but from the British government he obtained no thanks whatever, and the enterprise was not such as to bring much prize-money. Collingwood, in a dispatch to the Admiralty, declared his belief that Cochrane had 'prevented a body of French troops, which were intended for Figueras, from advancing into Spain, by giving them employment in defence of their own coasts.' Cochrane says that, in spite of this favourable notice from his commander, he obtained nothing in return but hatred from the corrupt British government, 'because I had connected myself with a Radical constituency, and had set up as a reformer of naval abuses.' Strong language this; but such abounds in his Autobiography. His anger with the home authorities, however, did not at all damp his appetite for attacking the enemy. He had an intense liking for the excitement of his adventurous life, and fought the French for the mere pleasure of doing it, irrespective of all chances of promotion or prize-money. In a contest on the coast, on the 15th November, an incident in gunnery of a very extraordinary kind occurred. The French fired a shot which entered the muzzle of one of Cochrane's guns just when it was being fired; the two balls were in the gun at one time, and, as a consequence, it burst. Later in the month, and early in December, Cochrane was engaged in a formidable attempt

to preserve the town of Rosas from falling into the hands of the French; he was engaged in operations on shore, as if he had been a military instead of a naval officer, especially in defending a castle from a skilfully conducted siege.

Lord Cochrane frequently consoled himself, under the influence of vexation at the conduct of the home authorities, by collecting the unbiassed opinions of disinterested persons. The following he stated to have been written by Sir Walter Scott, but he did not name the work from which the extract was taken: 'Lord Cochrane, during the month of September 1808, with his single ship the *Impérieuse*, kept the whole coast of Languedoc in alarm, destroyed the numerous semaphoric telegraphs, which were of the utmost consequence to the numerous coasting convoys of the French; and not only prevented any troops from being sent from that province into Spain, but even excited such dismay, that 2000 men were withdrawn from Figueras to oppose him, when they would otherwise have been marching farther into the Peninsula. The coasting-trade was entirely suspended during this alarm. Yet with such consummate prudence were all Lord Cochrane's enterprises planned and executed, that not one of his men was either killed or hurt, except one who

was singed in blowing up a battery.'

The opening of the year 1809 found Cochrane still in command of the *Impérieuse*, and still cruising along the French and Spanish coasts of the Mediterranean. So incessant had been his exertions, that he longed now to have a sojourn at home. Still more did he long, as member of parliament for Westminster, to expose certain malversations which had come under his notice. There were establishments at the English stations in the Mediterranean called Admiralty Courts, where prizes were examined, and prize-money awarded. Against the practice of these courts he inveighed in very strong language. He asserted that the officials of those courts were reaping colossal fortunes at the expense of naval officers and seamen, who were wasting their lives and blood for official gain. To such an extent was this carried, that a ship captured without cargo never yielded a penny to the captors, the whole proceeds being swallowed up by the Admiralty Court. With cargo, some trifling surplus might remain; but what between pilfering and official fees, the award was hardly worth the trouble of capture. The effect of this upon the navy was most disastrous; and not upon the navy only, but upon the nation also, which had upwards of 1000 ships in commission, without any result at all commensurable with the 'Captains were naturally disinclined to harass themexpenditure. selves and crews for nothing, and avoided making prizes certain to yield nothing but the risk and trouble of capture, and which, in addition, might bring them into debt, as was the result in my own case.' He adds: 'It will now be evident why I preferred harassing the French army in Spain to making prizes for the enrichment of

officials of the Maltese and other Admiralty Courts. It was always my aim to serve my country before my own interests; and in this case I judged it better to do so where the service could be most effectual.

SERVICES IN THE BAY OF BISCAY—STRUGGLE WITH LORD GAMBIER: 1809.

On arriving in England, instead of being allowed to resume parliamentary duties, Cochrane had a new service at sea marked out for him. A large French fleet, intended to operate against the British West India Islands, was blockaded by Lord Gambier in the Bay of Biscay. The Admiralty consulted Cochrane on the practicability of wholly destroying that fleet by means of fire-ships. He sketched a scheme which he thought would be effective, and the Admiralty accepted it; but it placed him in an anomalous position. He went out to join Gambier's fleet, ostensibly to command the fire-ships and explosion-ships which were to blow up the French fleet. It was a miserable arrangement; for all the admirals and captains in Gambier's fleet construed it into an indignity, that a new-comer should thus be placed over them in an enterprise of a daring and noteworthy kind. Cochrane had not sought the duty, and was thus, without his own intention or wish, placed on an unpleasant footing with other officers. Gambier was in the habit of distributing religious tracts among his crew. Cochrane injudiciously, as he afterwards admitted, sent some of these tracts to William Cobbett, who was a personal friend of his among the Radicals, together with sundry comments on the discipline and organisation of Gambier's ships. The use which Cobbett made of this information did not improve the state of matters between Cochrane and those around him. Proceeding with his duty of destroying, or endeavouring to destroy, the Brest fleet, Cochrane had an explosion-ship fitted under his own direction. 'The floor of the vessel was rendered as firm as possible, by means of logs placed in close contact, into every crevice of which other substances were firmly wedged, so as to afford the greatest amount of resistance to the explosion. On this foundation were placed a large number of spirit and water casks, into which 1500 barrels of powder were emptied. These casks were set on end, and the whole bound round with hempen cables, so as to resemble a gigantic mortar, thus causing the explosion to take an upward course. In addition to the powder-casks were placed several hundred shells, and over these again nearly 3000 hand-grenades; the whole, by means of wedges and sand, being compressed as nearly as possible into a solid mass. . . . The explosion-vessels were simply naval mines, the effect of which depended quite as much on their novelty as engines of war as upon their destructiveness. It was calculated that,

independently of any mischief they might do, they would cause such an amount of terror as to induce the enemy to run their ships ashore, as the only way to avoid them and save their crews.'

Armed with such dreadful engines of mischief, Gambier's fleet prepared to attack the French. Cochrane wished to attack on the 10th of April, directly the fire-ships were ready, and before the French became aware of their character; but Gambier insisted on delay; and the French were thus enabled to make defensive arrangements. Their fleet, under Admiral Allemand, was in Aix Roads, and consisted of 10 ships of the line, 4 frigates, and a store-ship. Allemand took in as much sail as possible, to avoid feeding the flame; and armed seventy-three boats and launches, whose duty would be to board and tow off the British fire-ships as they arrived. The frigates were placed half a mile in front of the line-of-battle ships; and a boom of great timbers, nearly half a mile in length, and presenting a right angle in the middle, was in front of the frigates. The islands of Aix, Oleron, &c., near the coast off Rochefort, aided by their fortifications the defence of the fleet. The British fleet was very large, consisting of 11 ships of the line, 7 frigates, 5 gun-brig sloops, 6 gun-brigs, 3 smaller vessels, and 23 fire-ships and explosion-vessels. Many an English sailor said, then and afterwards, that Nelson would have undertaken the work with a much smaller force than this; for it was larger than Allemand's, irrespective of the fire-ships and explosion-vessels.

The momentous attack was not followed with the hoped-for results. Cochrane, in an undaunted manner, fired off one of the explosionships with his own hand, when very near the French in a dark night, rowing out hastily in an open boat to get away before the fuse had reached the combustibles. 'For a moment, the sky was red with the lurid glare arising from the simultaneous ignition of 1500 barrels of powder. On this gigantic flash subsiding, the air seemed alive with shells, grenades, rockets, and masses of timber, the wreck of the shattered vessel; whilst the water was strewn with spars, shaken out of the boom.' In other quarters, however, the operations had not been very successful; of more than twenty fire-ships, only four reached the enemy's position, and not one did any damage. Cochrane bitterly complained of the way in which those fire-ships were handled; and then as bitterly complained that Gambier, who was with the fleet fourteen miles out at sea, did not come in to attack the French when their panic began at the explosion-ship. Cochrane telegraphed to Gambier over and over again, as soon as daylight came, by means of flag-signals, that most of the French ships could easily be captured. From this time ensued a series of cross-purposes. Gambier did not capture or destroy the French fleet, which Cochrane asserted could easily be done; and Cochrane was sent by his superior with dispatches to England, as if to get rid of him as a troublesome person.

Fifty-one years after this occurrence, Captain Hutchinson, who had been lieutenant of the Valiant at the time, wrote to the Earl of Dundonald, to confirm the earl's statements as to the events of the day, and to relate certain anecdotes which had come under his personal notice. The French fleet, it appears, was in a panic when Cochrane commenced his attack. They ran their ships on shore, and escaped in a fright. The French government afterwards admitted this to have been the case. 'There was one man, however, Hutchinson said, 'who did remain when all the remainder of the crew had quitted. This was a quarter-master on board the Ocean, who, indignant at the cowardly desertion of the ships, hid himself when the crews were ordered to quit; and this was the salvation of that three-decker and two other ships, in an extraordinary way. A little midshipman belonging to one of our smaller vessels (I believe a brig) had been sent in a jolly-boat that night with a message to another ship, and having delivered it, instead of returning immediately to his own vessel, he proposed to his men to go and look at the French ships from which the crews had been seen to flee. His men of course were willing, and they approached cautiously very near to the three-decker (the night being very dark) before they could observe any stir on board or around her. They were then suddenly hailed by the quarter-master before mentioned with a loud "Qui vive?" (Who goes there?). Of course the poor little midshipman took it for granted that the ship was occupied by more than one man; and he hastily retreated, glad to escape capture himself. Had he known the truth, that little midshipman, with his jolly-boat and four men, might have taken possession of a three-decker and two seventy-fours!"

Now occurred a crisis in Lord Cochrane's professional life. The ministers proposed a vote of thanks to Lord Gambier. Lord Cochrane threatened, as member for Westminster, to oppose it, on the ground that Gambier had effected nothing to deserve thanks, and that he had neglected to destroy the French fleet in Aix Roads. Lord Mulgrave tried to dissuade him from this, as a course inconsistent in a naval officer; but Cochrane contended that, as a member of the House of Commons, he had rights and duties which overrode all professional considerations, and which he would honestly use without regard to the personal consequences to himself. As soon as this intention became known, Lord Gambier demanded a court-martial. Two months elapsed before the court was held; but at length it commenced on the 26th July 1809, on board the Giadiator,

^{*} The Autobiography which Lord Cochrane lived to write, in his green old age as Earl of Dundonald, was the means of bringing to light many such curious anecdotes as the above, which would else have possibly beea lost to the world. After the publication of the first volume in 1860, he received numerous communications from aged naval officers: many of which, including the above, were printed in the second volume. Half a century had not blunted the memory of the veterans.

at Portsmouth. The court-martial, after a nine days' trial, acquitted Lord Gambier; but it was six months later before the vote of thanks was moved and carried in the Commons.

Few things are more remarkable than the immense space of time which elapsed before Lord Cochrane was placed right with the public on this and other subjects. Had he not lived to a patriarchal age, he would not have had the pleasure of seeing justice rendered to himself. Certain charts, concerning which we need not weary the reader, were necessary to prove whether Gambier or Cochrane was more in the right concerning the famous affair in the Aix Roads. These charts were in the possession of the Admiralty; but for more than half a century he was not permitted to have a sight of them; when they did come to light, they supported the assertions which he had made in 1809. Writing as a white-haired old man in 1860, he said that, in 1859 and 1860, he had applied to two successive First Lords of the Admiralty, Sir John Pakington and the Duke of Somerset, for permission to inspect charts at the Admiralty; that the permission had been courteously given; that he there found the evidence for which he had been applying half a century in vain; and then he added: 'It will in the present day be difficult to credit the existence of such practices and evil influences of party-spirit in past times, as could permit an administration, even for the purpose of preserving the prestige of a government, to claim as a glorious victory a neglect of duty which, to use the mildest terms, was both a naval and a national dishonour.

To return to the events of 1809. 'From this time forward,' said the Earl of Dundonald in 1860—that is, from the date when Lord Gambier was acquitted by the court-martial—'I never trod the deck of a British ship-of-war at sea, as her commander, till thirty-nine years afterwards, when I was appointed by her present Most Gracious Majesty to command the West India squadron.' Thirty-nine years of enforced absence from British sea-life for such a man! It was almost tantamount to taking away from him the very air he breathed. Cochrane was evidently much out of favour in official quarters; and he made another attempt to agitate for naval reform in the House of Commons. When a vote of thanks to Gambier was proposed, in April 1810, Cochrane moved as an amendment that the minutes of the court-martial should be produced, in order to shew that the acquittal was contrary to the evidence; but the House rejected the amendment, and passed the vote of thanks.

MISCELLANEOUS PROCEEDINGS: 1809-1813.

Just about that time, a military and naval expedition to Walcheren was much talked of, to capture and destroy the French fleet in the Scheldt, and to destroy Bonaparte's arsenals at Flushing, Antwerp, and Termeuge. It was to be one of the largest armaments ever

sent forth from England, and was to be commanded by the Earl of Chatham and Sir Richard Strachan.* If this were the proper place, we might notice one of the most disastrous and humiliating defeats ever borne by Englishmen, through the incompetence of their rulers and commanders; but we have only to do with it so far as concerned Lord Cochrane. He sketched a plan for destroying the enemy's works and fleets, and sent it to the Admiralty; but not only was his plan refused; he himself was forbidden to join the expedition, the Impérieuse being placed under another officer. Forty thousand troops, 35 sail-of-the-line, 23 frigates, and nearly 200 smaller vessels, made a miserable business of the Walcheren expedition. What would have been the result had Cochrane joined it, cannot of course be said, though the probability is that he would have fallen again into disfavour by commenting freely on the incapacity of his superiors.

Deprived of active duties at sea, Cochrane entered the arena of politics. He joined Sir Francis Burdett and Major Cartwright in the advocacy of parliamentary reform, and became an extreme Radical, according to the views of those days—although he lived to see such radicalism recognised and advocated by large majorities in the House of Commons. This is one of the many matters on which the venerable Earl of Dundonald lived to see justice done to the dashing and impetuous Lord Cochrane—the same man under two different aspects, fifty years apart. He succeeded on one occasion in inducing the House to inquire into the misdoings of the several Admiralty Courts. On another occasion he defended the privilege of liberty of speech, which had been placed in danger by the committal of Sir Francis Burdett to the Tower. On a third occasion he attacked the monstrous system on which pensions were given, not according to merit, but according to parliamentary influence. The pensions given to meritorious officers who had lost limbs in the service, were as nothing compared to those given in other ways. There were, too, sinecure offices in those days which now we look at with astonishment. Lords Arden, Camden, and Buckingham all held sinecure posts which brought them in more than £20,000 a year each. Cochrane's mode of stating these facts, in a speech in the House on the 11th of May 1810, was amusing as well as startling: '32 flag-officers, 22 captains, 50 lieutenants, 180 masters, 36 surgeons, 23 pursers, 91 boatswains, 97 gunners, 202 carpenters, and 41 cooks, in all 774 persons, cost the country £4028 less than the net proceeds of the sinecures of Lords Arden, Camden, and Buckingham. All

^{*} A pungent satire on these two officers, relating to their dilatory and ill-organised proceedings, was put forth by a witty writer of the period:

^{&#}x27;The Earl of Chatham, with sword drawn, Stood waiting for Sir Richard Strachan; Sir Richard, longing to be at 'em, Stood waiting for the Earl of Chatham.'

the superannuated admirals, captains, and lieutenants put together have but £1012 more than Earl Camden's sinecure alone. All that is paid to the wounded officers of the whole British navy, and to the wives and children of those dead or killed in action, do not amount by £214 to as much as Lord Arden's sinecure alone. What is paid to the mutilated officers themselves is but half as much. Should 31 commissioners, commissioners' wives, and clerks, have £3800 more amongst them than all the wounded officers of the navy of England? I find, upon examination, that the Wellesleys receive from the public £34,729, a sum equal to 426 pair of lieutenants' legs, calculated at the rate of allowance of Lieutenant Chambers's legs. Calculating for the pension of Captain Johnstone's arm, Lord Arden's sinecure is equal to the value of 1022 captains' arms. Two of these comfortable sinecures would victual the officers and men serving in all the ships in ordinary in Great Britain—namely, 117 sail of the line, 105 frigates, 27 sloops, and 50 hulks. Three of them would maintain the dockvard establishments at Portsmouth and Plymouth.'

Such curious political arithmetic as this was of course very distasteful to official persons generally; and Cochrane fell more and more out of favour. The *Impérieuse* obtained another commander,

and he was left at home in idleness.

In 1811, Cochrane went to Malta, to investigate the conduct of the Admiralty Court there. The oddity of his character here again appeared. He wished to get hold of a 'table of fees,' to ascertain whether the court was legally justified in claiming the enormous fees charged for adjudicating in matters of prize-money. The existence of such a table was either denied or evaded. 'As by act of parliament, they ought to have been hung up in the court, I made careful search for them, but without success. Entering the judge's robing-room unopposed, I there renewed the search, but with no better result, and was about to return table-less; when, having been directed to a private closet, I examined that also, and there, wafered up behind the door of the judge's retiring-chamber, was the Admiralty Court table of fees! which I carefully took down, and re-entered the court, in the act of folding up the paper, previously to putting it in my pocket.' He at once sent off the paper to England, there to be brought before the notice of the House of The Malta authorities, finding what had been done, imprisoned him, and endeavoured to convict him of robbery. He contrived, in a strange way, to escape from them, and from the island, glad at anyrate to be able to send to England a document which he felt certain would not bear the test of proper examination.

In the following year (1812), Cochrane's inventive mind conceived the plan of a tremendous system of naval warfare, the nature of which was kept a profound secret, lest it should come to the knowledge of the enemy. He brought it before the notice of the Prince Regent; and a committee of officers was appointed to investigate its merits.

The inventions were declared to be of a most destructive nature, but nothing was resolved on concerning their immediate use. Cochrane faithfully kept to his determination, as a British subject, not to make a profit of his invention, by selling it to the enemy; he kept his secret through all the miseries and disappointments of subsequent years. At various times between 1812 and 1856, these projects of Lord Cochrane's were brought directly or indirectly under public notice. Many persons doubted the efficacy of the plans; many disliked them because of the hideous destruction they would produce: and nearly all admired the firmness of the inventor. in keeping the plans for the use of his own country alone. To this day the nature of the plans is only known to a very few officers. During the Crimean war, the name of 'Dundonald' was frequently appended to letters in the public journals, urging the adoption of his schemes for the destruction of the Russian fleets at Sebastopol and Cronstadt; but the plans, whatever they may be, have never yet been put in execution. Nothing can exceed the positiveness with which the Earl of Dundonald in his Autobiography asserts the power of his project to work any assignable amount of injury on an enemy. 'These plans,' he says, 'afford the infallible means of securing at one blow our maritime superiority, and of thereafter maintaining it in perpetuity—of at once commencing and terminating war by one conclusive victory. A hundred millions employed in war could not complete the ruin of our maritime opponents so effectually as could be done by the simple methods indicated in my plans; and that too in spite of the apparently formidable fortifications and other defences of ports and roadsteads.' this reads incredible; but the old man never swerved for forty years in maintaining that such would be the practical effects of his mysterious agency.

Until now, Lord Cochrane had remained unmarried; but before the close of the year, he married a lady without fortune, Miss Katherine Corbett Barnes. One of his uncles, the Honourable Basil Cochrane, who had amassed a large fortune in the East Indies, had planned a marriage for him with the daughter of an official of one of the Admiralty Courts. Now, against Admiralty Courts he had been waging war for nearly twenty years; and he argued that if he married into that circle, the world would say he had done it to curry favour with his wealthy uncle. Cochrane here displayed the same obstinate originality as in so many other events of his life; he married the lady he had chosen, rejected the lady whom his uncle had chosen, and was at once cut off from any participation in his uncle's fortune. It was a happy step, however; for in his old age he declared the greatest treasure of his life had

been the wife thus acquired.

THE STOCK EXCHANGE FRAUD-COCHRANE'S DISGRACE: 1814.

Passing over the year 1813, during which Cochrane was busily but unsuccessfully engaged in advocating naval and other kinds of reform, we come to 1814, the most miserable year in the life of this rémarkable man; a year marked by an incident in every way extraordinary—the Great Stock Exchange Fraud. About midnight on the 20th February, a person calling himself Colonel de Bourg, aide-de-camp to Lord Cathcart, presented himself at the Ship Hotel at Dover, representing that he was the bearer of intelligence from Paris to the effect that Bonaparte had been killed by the Cossacks-that the allied armies were in full march for Paris—and that immediate peace was certain. After this announcement, he forwarded similar intelligence by letter to the port-admiral at Deal, with a view, as was supposed, of its being forwarded to London by telegraph; thus making the portadmiral the medium of communication with the government. The report was wholly false, and most unquestionably got up to influence the prices of funds on the Stock Exchange. It succeeded. The news spread like wildfire. Every one was rejoiced that the archenemy of European peace was at length dead; and the funds went up rapidly. The very next authentic dispatches from the continent. however, made known the fact that Bonaparte was not dead; and then those who had bought in at high prices bitterly complained of the fraud, to investigate which the Stock Exchange appointed a committee.

Such was the fraud. The two facts which came out as affecting Cochrane were—that one of his uncles made an enormous sum of money by it; and that the man who had disseminated the rumour was seen to enter Cochrane's house. Cochrane, in an affidavit afterwards made public, thus narrated all he knew on the subject. On the morning in question he breakfasted with his uncle. Mr Cochrane Johnstone, and went with him into the City. While there, a note came, requesting him to come home immediately. On returning, he found one Captain Berenger waiting for him. The captain, who was known to him, pleaded great distress, and earnestly entreated Cochrane to take him out with him in the *Tonnant*, to which Cochrane had just been appointed. Cochrane lent him a coat and hat, to enable him to make a visit where he said a military uniform would be inconsistent; and he then left the house in a coach. Berenger appears to have been the man who originated the false rumours at Dover; and it also appears that his visit to Cochrane was made simply to aid his own escape from detection, regardless of consequences to his lordship.

The subject created an immense sensation. As De Bourg, or rather Berenger, had unquestionably been seen to enter Cochrane's

house on the morning after the origination of the rumour, and as the uncle unquestionably realised a large sum of money by the fraud, the evidence looked so black as to lead to the trial of Cochrane. This trial was conducted by Lord Chief-justice Ellenborough, in a manner which has been severely commented on by later judges. His bias against the accused was evident from the first; and his charge to the jury led to the conviction of Lord Cochrane, with a fine, an imprisonment, and a condemnation to stand in the pillory. This was followed by his expulsion from the House of Commons—

altogether a bitter ordeal for such a man as Cochrane.

There is no doubt now in the mind of any one that he was guiltless of participation in the fraud, although his uncle was guilty. For the first and only time, an English chief-justice was at the same time a cabinet minister; and the mode in which Lord Ellenborough made the second of these two offices affect his decision in the first, has met with severe condemnation. Lord Brougham and the late Lord Campbell endorsed this opinion. The latter, in his Lives of the Chief-justices, said that Ellenborough was blamed, 'not only by the vulgar, but by men of education on both sides in politics; and he found upon entering society and appearing in the House of Lords that he was looked upon coldly. Having now some misgivings himself as to the propriety of his conduct in this affair, he became very wretched. In obedience to the public voice, the part of his (Cochrane's) sentence by which he was to stand in the pillory was remitted by the crown; and a bill was introduced into parliament altogether to abolish the pillory as a punishment, on account of the manner in which the power of inflicting it had been recently abused. It was said that these matters preyed deeply on Lord Ellenborough's mind and affected his health. Henceforth, he certainly seemed to have lost the gaiety of heart for which he had before been remarkable.

It was a sad picture. The brilliant Lord Cochrane sentenced to pay a fine of £1000, to be imprisoned in the Marshalsea for twelve months, and to be placed in the pillory for an hour in front of the Royal Exchange! The last part of the sentence was, as we have seen, rescinded; but the fine was paid, and the imprisonment suffered. Nor was this all. He was expelled from the House of Commons, from the Navy List, and from the order of the Bath—all for an offence which, it is now universally believed, he did not commit! He lived forty-five years longer to see his good name restored to him; but no tongue can tell what his gallant spirit suffered during this interval. The electors of Westminster, refusing to believe in his guilt, re-elected him; but as he was a prisoner, he could not take his seat in the House. The Bank of England retains as a curiosity the £1000 note with which Cochrane paid the fine, and on which he wrote the following words: 'My health having suffered by long and close confinement, and my oppressors being

resolved to deprive me of property or life, I submit to robbery to protect myself from murder, in the hope that I shall live to bring the delinquents to justice.' This was written in July 1815, after a year's imprisonment.

COMMANDS THE CHILI FLEET: 1817-1823.

There then occurred two years of enforced idleness. The vigorous and daring Cochrane found nothing to occupy his fertile mind, because the navy was cruelly closed against him. At length, however, about the middle of 1817, the heroic naval commander was called to a new scene. Chili, having thrown off its allegiance to Spain, and finding it needful to defend its liberties by sea as well as by land, offered to Lord Cochrane the command of such a fleet as it could manage to get together. Cochrane was at once appointed Vice-admiral of Chili, Admiral and Commander-in-chief of the naval forces of the republic. The Chilian fleet was certainly a small one, comprising only the O'Higgins, 50 guns; San Martin, 56; Lantaro, 48; Chacabuco, 20; Galvarino, 18; and Aracauno, 16. Two of the ships were traders, hastily mounted with guns.

Our hero's four years of service in Chili were years of activity and brilliant enterprise. Just as he was leaving Valparaiso to commence operations against the Spaniards, he received an unexpected volunteer in the person of his first-born, a child of five years old, who had made his escape from his mother, and appeared mounted on the shoulders of a lieutenant, waving his little cap and shouting: 'Viva la patria! Nothing would satisfy him but accompanying his father, which he accordingly did. Cochrane's first plans, in the early part of 1819, were frustrated by the fogs which so often prevail along that coast, and which he had not yet learned to understand. During a skirmish in the harbour of Callao, the child Cochrane, the boyvolunteer, was locked into the cabin, to keep him out of the way of harm; but not liking the confinement, he contrived to scramble out of the quarter-galley window, and joined his father on the deck. The men then dressed him in a miniature uniform which they had made for him; and he felt proud to employ himself in handing powder to the gunners. Whilst thus employed, a round shot took off the head of a marine standing close to the child; the father was in agony for a moment, but the little fellow ran up to him, crying: 'I am not hurt, papa; the shot did not touch me: Jack says the ball is not made that can kill mamma's boy!' This was indeed a 'chip of the old block.

Cochrane's first attack had failed from various causes; but the Spaniards now knew, from the daring way in which it was made, that the terrible Englishman was near them; and ever afterwards they called him El Diabolo. The Spanish fleet in those waters consisted of the Esmeralda, 44 guns; Venganza, 42; Sebastiana, 28;

Maypen, 18; Peruela, 22; Potrilla, 18; a schooner; seven armed merchantmen; and twenty-seven gun-boats. This force was very much larger than Cochrane's; but in such disparity he took positive delight. Very early in his operations, he had been able to liberate, in the small island of San Lorenzo, thirty-seven Chilian soldiers who had been imprisoned by the Spaniards for seven years; they had been forced to work in chains, and at night were chained by the leg to an iron bar in a filthy shed. Cochrane established a laboratory in San Lorenzo; and while rockets and fire-ships were being prepared there, he sailed hither and thither, capturing treasure-ships belonging to the Spaniards, and intercepting treasure-trains inland. While these things were doing, Lady Cochrane, who had taken up her abode in a villa outside Valparaiso, was attacked one night by a Spaniard, who threatened her with instant death unless she revealed the secret orders which had been given to her husband by the government. This she heroically refused to do: she was stabbed with a stiletto; and her life was saved only by the prompt attendance of servants, who secured the would-be assassin.

In September 1819, Cochrane set forth to attack Callao, the seaport of Peru. His squadron consisted of seven vessels, with two fire-ships, and four hundred soldiers to act as marines. On the 30th he entered the bay. He sent a flag of truce, challenging the viceroy of Peru to fight him, ship for ship; which challenge was of course prudently declined. Rafts were made to serve as rocket-rafts and mortar-rafts; but Cochrane was put to many shifts for want of efficient stores, and his first attack with rockets failed on this account. Nor did the fire-ships answer his purpose much more completely. To add to his vexation, a treasure-ship contrived to elude the attention of some of his cruisers, and to enter Callao safely with treasure to the value of half a million sterling. Cochrane, postponing a further attack on Callao for a time, steered to Pisco, where was a well-appointed Spanish force of one thousand men, supported on their right by a fort on the sea-shore. The marines under him stormed the fort and defeated the Spaniards in a very gallant way. Early in 1820, Cochrane conceived the daring plan of carrying Valdivia by storm. Circumstances beyond his own control had checked him at Callao; and he now resolved on something after his own heart. 'Cool calculation,' he said to General Miller, would make it appear that the attempt to take Valdivia is madness. This is one reason why the Spaniards will hardly believe us in earnest, even when we commence; and you will see that a bold onset, and a little perseverance afterwards, will give a complete triumph; for operations unexpected by the enemy are, when well executed, almost certain to succeed, whatever may be the odds; and success will preserve the enterprise from the imputation of rashness. He was right. He had with him only a frigate, a schooner, and a brig. On the way, he narrowly escaped shipwreck in the frigate,

and only kept the vessel afloat by continual pumping—Cochrane repairing the pumps with his own hands. Valdivia, a noble harbour, was defended by a chain of nine Spanish forts; each fort had a ditch and rampart; and the whole mounted 118 guns, manned by 1600 troops. This was indeed a formidable place to attack with three small ships. The forts were, however, much isolated, with very indifferent passages between them; this led Cochrane and Miller to attack them singly, which was done with astonishing success. In truth, the Spaniards were so dismayed at the audacity of the attempt on the night of the 3d of February, that they failed to make due resistance; fort after fort fell to the invaders; and on the 5th, Valdivia, with the whole of the forts, surrendered to Cochrane. Large quantities of stores were captured, as well as much treasure.

When Cochrane returned to Valparaiso from Valdivia, the populace greeted him with enthusiasm, but the ministers of the republican government harassed him; for there was a clique against the great Englishman. The government, too, were desperately selfish; he obtained no reward; and his gallant men were left almost in rags, without pay or prize-money. Numberless difficulties impeded his path; and it was only by threats to resign that he could obtain any attention to the wants of the fleet. When these difficulties were surmounted, he set off once again, to assist in rescuing Peru from the Spaniards. Unfortunately, General San Martin, who commanded the military portion of the expedition, was wedded to his own plans, which clashed with Cochrane's; and, as a consequence, much precious time was lost. Cochrane occupied the dismal period with capturing the Esmeralda, a frigate lying under a fort defended by 300 guns. His manner of effecting this, by boats' crews rowed along silently on a dark night, was worthy of the man who had achieved such things in the Mediterranean. Month after month followed, in which Cochrane's prowess was repeatedly exhibited, to the discomfiture of the Spaniards. But all his larger plans were thwarted by San Martin, who was secretly planning to carve out a new republic for himself.

In 1821, while Cochrane was thus engaged, Lady Cochrane, who had won the hearts of the Chilians by her mingled grace and spirit, returned to England, to defend her husband from a new persecution intended for him. This was in the form of a Foreign Enlistment Act, the clauses of which were especially aimed at those who had engaged in a service that had for its object the expulsion of Spain from her American colonies.

The ending of Lord Cochrane's career in Chili was not such as his high and generous spirit had anticipated. He was surrounded by men who looked rather to their own interests than to the welfare of their country. San Martin contrived to make himself dictator or president of Peru, and then disavowed all obligations to Chili and to Cochrane, whose seamen and marines were reduced to the utmost

want. Cochrane, almost maddened by what was going on around him, seized a treasure-ship belonging to the government of San Martin, with nearly three hundred thousand dollars on board, and paid his poor fellows their wages out of it, as well as supplying them with necessaries. He kept a strict account of these transactions, to render to the Chilian government.

COMMANDS THE BRAZILIAN AND GREEK FLEETS: 1823-1827.

Tired out, and left almost unrewarded for his exertions, Lord Cochrane quitted the service of Chili in 1823. For sixteen years he endeavoured to obtain restitution of prize-money which had been unjustly withheld from him and his officers: but he never obtained it. He turned his attention to Brazil, which was at that time endeavouring to throw off the yoke of Portugal. Dom Pedro had assumed the title of Emperor of Brazil; and to enable him to contend against a force sent from Lisbon, he invited Lord Cochrane to take command of the young Brazilian navy. This consisted of the Pedro Primeiro (64 guns), Maria de Gloria (32), Piranza frigate, and two or three small vessels. The crews were men of all nations and colours, badly disciplined and worse paid; insomuch that Cochrane, 'First Admiral and Commander-in-chief of the Brazilian Squadron,' had to look forward to hard and troublesome work. The Portuguese fleet opposed to him comprised a line-of-battle ship, five frigates, five corvettes, a brig, and a schooner. On the 3d of July, he gave chase to thirteen Portuguese war-ships, in the *Pedro* alone; and on the same night, after dark, he made a dash in among them. firing both broadsides. He then boarded some of the smaller ships, cut away their topmasts, disabled their rigging, threw their arms overboard, and compelled their officers to give their parole not to serve against Brazil until regularly exchanged. These were the kind of exploits which rendered him the Nelson of his day, and struck terror into his opponents. When he returned to Rio Janeiro, in November 1823, he was received with transports of enthusiasm; the emperor visited him personally on board the *Pedro*, and created him Marquis of Maranham. Cochrane's old luck attended him, however. During the whole of 1824 and 1825, he was contending against the authorities, who persisted in withholding prize-money from him and his men; the young emperor was well disposed towards him, but he could not make head against the officials who held the keys of the government. It would be sickening to detail all the machinations of the period. Suffice it to say that, after having achieved the liberation of Brazil, he was got rid of, and never to the day of his death received what was his due.

His services still being ignored by the government of his native country, Lord Cochrane, unable to live a life of inglorious ease, threw his sword once again into the scale of national freedom.

Greece was at that time struggling to throw off the yoke of Turkey. It was very poor, and could not offer many inducements; but Lord Cochrane determined to offer his aid in spite of its poverty. Repeated applications had been made to him, and he accepted the command of the Greek navy—a navy to be, but not yet in existence. It was not till February 1827 that Cochrane found himself at the head of a small squadron in the Greek waters; but so miserably were affairs managed in the new state, that he found himself nearly powerless; and he shortly afterwards left the Greeks to achieve their own independence by themselves, which they did.

RESTORATION TO RANK AND HONOURS: 1830-1860.

We now come to the end of the active life of this extraordinary man. He had got a little past the age of fifty; he had thirty-five more years of life in him, but during those thirty-five years he never drew a sword in actual warfare. A brighter though quieter time was coming for him. He had fought brilliantly for England, for Chili, for Peru, for Brazil, for Greece, and yet how strange had been his reward! Gradually the stain on his good name was removed in his native country; but it took long to accomplish this. After returning from Greece, Cochrane remained quiet in England, living on such fortune as he had been able to acquire. In 1831, his father died, and he then became Earl of Dundonald-an honoured but poor title, for estates there were none. William IV. was at that time king. He was among those who believed that Cochrane. innocent of the Stock Exchange fraud, had been cruelly treated by his native country; and the 'sailor king' was anxious to testify his good opinions of his brother-sailor. In a country like England, however, the sovereign cannot do much without the official sanction of his ministers; and it was only by slow steps that the great seacaptain had justice meted out to him. In 1832 a free pardon was granted to him under the Great Seal, in reference to the crime for which he had been convicted eighteen years before, but which the world now believes he never committed. His name was next replaced upon the Navy List, and he was made an admiral-to the great joy of the nation generally, among whom he had always been a favourite. It was contended by many that this reappointment and promotion ought to have been accompanied by the payment of captain's half-pay for eighteen years; but this was more than the government thought proper to accede to. Years rolled on, and Admiral the Earl of Dundonald remained with his family in England; there were no English wars to call for his sword; and his position as a flag-officer in the British navy precluded his acceptance of any adventurous services for other nations, even if any such had been suggested. In 1841 the Admiralty—from which his old enemies had died off or had retired—granted him the good-service

pension of £300 a year. In 1847 he was restored to the order of the Bath, from which he had been so cruelly removed thirty-three years before; and not restored merely, but graced with the higher rank of K.G.C., instead of his former rank of simply K.B. In 1848 he received the appointment of naval commander-in-chief of the North American and West India stations—a high and honourable command, and one of the most trustworthy which the government had This service, of three years' duration, involved no to bestow. fighting, but called for administrative tact and professional knowledge, combined with a hearty love for everything which tended to the welfare of the navy. In 1854 he was made Rear-admiral of England, with an additional salary of £342 per annum. A few years after this, Queen Victoria ordered the restoration of his knightly bearings in Henry VII.'s Chapel-the banner, the brass plate containing his lordship's arms, the helmet, the crest, the mantling, the sword—all, which the King at Arms had torn down so many years before, were now restored.

Let us understand the significancy of the proceedings noticed in the last paragraph. They were virtually the homage paid by the national government to an injured man. When a jury has given a verdict, and a judge has passed sentence, it is an awkward thing for the government to disavow the proceedings; but public men, of all ranks and parties, had gradually come to the conclusion that an immense injustice had been done; and they were all willing that the Earl of Dundonald should receive some reparation for the ill rendered to him as Lord Cochrane. Happily for him, he lived to

see this restitution.

The Earl of Dundonald retained his faculties in vigour to the last. In 1855, when eighty years of age, he entered eagerly into the discussions concerning the possibility of destroying the Russian fleets and forts by means of new and formidable explosive agents.

DEATH AND FUNERAL.

He died on the 30th October 1860, having nearly completed his eighty-fifth year. His death was not so painless as his friends could have wished, for he had in his old age undergone two operations for lithotomy. It was worthy of the authorities and the nation to deposit his remains in Westminster Abbey, by the side of so many other gallant members of the public service. He was buried on the 14th of November. There assembled round his grave many whose names are dear to all of us, headed by the venerable Lord Brougham. The Admiralty, which had long before ill-used him, was represented by many gallant officers; and Chili and Brazil, which had made him an ungrateful return for invaluable services, were represented by the ministers of those nations at the court of St James's.

Thus died a great sea-captain an ardent lover of liberty, an

indomitable opposer of official corruption at all times and places, a friend of seamen and of everything that could tend to seamen's welfare, an acute inventor of mechanical and chemical appliances, and a warm-hearted and generous man in all the relations of life. His unhesitating audacity often brought him into troubles which he might easily have avoided; but it resulted from a firm reliance on the honesty of his own intentions. A journal whose vocation is to supply weekly budgets of fun and frolic, but whose pages have been open to the pathos of Thomas Hood and other noble spirits, gave some stanzas of burning eloquence to the memory of Dundonald. Let us transcribe three of the earlier and four of the later of these stanzas:

A sea-king, whose fit place had been by Blake, Or our own Nelson, had he been but free. To follow glory's quest upon the sea, Leading the conquered navies in his wake.

A captain, whom it had been ours to cheer From conquest on to conquest, had our land But set its wisest, worthiest in command, Not such as hated all the good revere.

We let them cage the lion while the fire In his high heart burnt clear and unsubdued; We let them stir that frank and forward mood From greatness to the self-consuming ire.

He came
Back to his England, bankrupt, save of praise,
To eat his heart, through weary, wishful days,
And shape his strength to bearing of his shame.

Till, slow but sure, drew on a better time, And statesmen owned the check of public will; And, at the last, light pierced the shadow chill That fouled his honour with the taint of crime.

And then they gave him back the knightly spurs
Which he had never forfeited—the rank
From which he ne'er by ill-deserving sank,
More than the lion sinks for yelp of curs.

Justice had lingered on its road too long:

The lion was grown old; the time gone by,
When for his aid we vainly raised a cry,
To save our flag from shame, our decks from wrong.

32



HAVE to-day, December 15, 1764, visited Dr Snarl, and received from him £10, the amount of my half-year's salary. The receipt even of this hard-earned sum was attended with some uncomfortable circumstances.

Not until I had waited an hour and a half in the cold ante-room was I admitted into the presence of my reverend employer, who was seated in an easy-chair at his writing-desk. The money designed for me was lying by him, ready counted. My low bow he returned with a lofty side-nod, while he slightly pushed back his beautiful black silk cap, and immediately drew it on again. Really, he is a man of much dignity; and I feel I can never approach him without the awe I should have in entering the presence of a king.

He did not urge me to be seated, although he well knew that I had walked eleven miles in the bad weather, and that the hour and a half's standing in the ante-room had not much helped to rest my wearied limbs. He pointed me to the money. My heart beat violently when I attempted to introduce the subject which I had been for some time contemplating—a little increase of my salary. With an agony as if I were about to commit a crime, I endeavoured to break ground, but at every effort words and voice failed me.

'Did you wish to say anything?' observed the rector very politely.

'Why—yes—pardon me; everything is so dear that I am scarcely able to get along in these hard times with this small salary.'

'Small salary! How can you think so? I can at any time

procure another vicar for £15 a year.'

'For £15! Without a family, one might indeed manage with that sum.'

'I hope your family, Mr Vicar, has not received any addition?

You have, I think, only two daughters?'

'Yes, only two, your reverence; but they are growing up. Jenny, my eldest, is now eighteen, and Polly, the younger, will soon be twelve.'

'So much the better. Cannot your girls work?'

I was about to reply, when he cut the interview short by rising and observing, while he went to the window, that he was sorry he had no time to talk with me to-day. 'But you can think it over,' he concluded, 'whether you will retain your situation for a New-

year's gift.'

He bowed very paliticly, and touched his cap, as if wishing me to be gone. I accordingly lifted the money, and took my leave, quite disheartened. I had never been received or dismissed so coldly before, and fear that some one has been speaking ill of me. He did not invite me to dinner, or to partake of any refreshment, as he had done on former occasions. Unfortunately I had depended on him doing so, for I came from home without breaking my fast. Having bought a penny loaf at a baker's shop in the outskirts of the town, I took my way homeward.

How cast-down was I as I trudged along! I cried like a child.

The bread I was eating was wet with my tears.

But fy, Thomas! Shame upon thy faint heart! Lives not the gracious God still? What if thou hadst lost the place entirely? And it is only £5 less! It is indeed a quarter of my whole little yearly stipend, and it leaves barely 10d. a day to feed and clothe three of us. What is there left for us? He who clothes the liles of the field, and feeds the young ravens, will He not shield us with his Providence? Arouse thee, faint heart! We must deny ourselves some of our wonted luxuries.

Dec. 16.—I believe Jenny is an angel. Her soul is more beautiful than her person. I am almost ashamed of being her father; she is

so much more pious than I am.

I had not the courage yesterday to tell my girls the bad news. When I mentioned it to-day, Jenny at first looked very serious, but suddenly she brightened up and said, 'You are disquieted, father?'

'Should I not be so?' I replied.

'No, you should not.'

'Dear child,' said I, 'we shall never be free from debt and trouble. I do not know how we can endure our harassments. You see our need is sore; £15 will hardly suffice for the bare necessaries of existence; and who will assist us?'

Polly seated herself on my knee, patted my face, and said: 'I wish to tell you something, dear father. I dreamt last night that it was New-year's day, and that the king came to C——, where there was a splendid show. His majesty dismounted from his horse before our door and came in. We had nothing to set before him, and he ordered some of his own dainties to be brought in vessels of gold and silver. Military music sounded outside, and, only think, with the sounds some people entered, carrying a bishop's mitre on a velvet cushion. It looked very funny, like the pointed caps of the bishops in the old picture-books. The mitre was put on your head, and it became you grandly. Yet the oddity of the thing caused me to laugh till I was out of breath; and then Jenny waked me up, which made me quite angry. Surely this dream has something to do with a New-year's present; and it is now only fourteen days till New-year's day.'

'Oh,' said I to Polly, 'how can you speak of such nonsense?

Dreams can never come true but by accident?

'But, father, are not dreams from God?'
'No, no, child; put away all such fancies.'

Although I said so to Polly, I write the dream down. When in despair, one is apt to seize on any trifle for support. A New-year's gift would certainly be acceptable to all of us.

All day I have been at my accounts. I do not like accounts. Reckoning and money-matters distract my head, and make my heart

empty and heavy.

Dec. 17.—My debts, God be praised, are all now paid but one. At five different places I paid off £7, 11s. I have therefore left in ready money £2, 9s. This must last a half-year. God

help us!

The black hose that I saw at tailor Cutbay's I must leave unpurchased, although I need them greatly. They are indeed pretty well worn, yet still in good condition, and the price is reasonable; but Jenny needs a cloak a great deal more. I pity the dear child when I see her shivering in that thin camlet. Polly must be satisfied with the cloak which her sister has made for her so nicely out of her old one.

I must give up my share of the newspaper which neighbour Westburn and I took together; and this goes hard with me. Here in C—, without a newspaper, one knows nothing of the course of affairs. At the horse races at Newmarket the Duke of Cumberland won £5000 of the Duke of Grafton. It is wonderful how literally the words of Scripture are always fulfilled, 'To him who hath shall be given;' and 'From him who hath not shall be taken away.' I must lose £5 of even my poor salary.

Again murmuring; fy upon me. Wherefore should I complain? Not surely for a newspaper which I am no longer able to take. May not I learn from others whether General Paoli succeeds in

maintaining the freedom of Corsica, or any such matter of foreign news? I do not fear for Paoli, for he has 20,000 veterans.

Dec. 18.—How little makes a poor family happy! Jenny has procured a grand cloak at the slop shop for a mere trifle; and now she is sitting there with Polly, ripping it to pieces, in order to make it up anew. Jenny understands how to trade and bargain better than I; but they let her have things at her own price, her voice is so gentle. We have now joy upon joy. Jenny wants to appear in the new cloak for the first time on New-year's day; and Polly has a hundred comments and predictions about it. I wager the Dey of Algiers had not greater pleasure in the costly present which the Venetians made him—the two diamond rings, the two watches set with brilliants, the pistols inlaid with gold, the costly carpets, the rich housings, and the 20,000 sequins in cash.

Jenny says we must save the cloak in luxuries. Until New-year's

day we must buy no meat. This is as it should be.

Neighbour Westburn is a noble man. I told him yesterday I must discontinue my subscription for the newspaper, because I am not sure of my present salary, nor even of my place. He shook my hand and said: 'Very well, then I will take the paper, and you shall still read it with me.'

One must never despair. There are more good men in the

world than one thinks, especially among the poor.

The same day, eve.—The baker is a somewhat narrow-minded man. Although I owe him nothing, he fears that I may. When Polly went to fetch a loaf, and found it very small and badly risen, or half-burnt, he broke out into a quarrel with her, so that people stopped in the street. He declared that he would not sell upon credit

-that we must go elsewhere for our bread. I pitied Polly.

I wonder how the people here know everything. Every one in the village is telling how the rector is going to put another curate in my place. It is distressing, and will be the death of me. The butcher even must have got a hint of it. It certainly was not without design that he sent his wife to me with complaints about the bad times, and the impossibility of selling any longer for anything but cash. She was indeed very polite, and could not find words to express her love and respect for us. She advised us to go to Colswood, and buy the little meat we want of him, as he is a richer man, and is able to wait for his money. I cared not to tell the good woman how that person treated us a year ago, when he charged us a penny a pound more than others for his meat; and when his abusive language could not help him out, and he could not deny it, how he declared roundly that he must receive a little interest when he was kept out of his money a whole year, and then shewed us the door.

I still have in ready money £2, 1s. 3d. What shall I do if no one will trust me, so that I may pay my bills quarterly? And if

Dr Snarl appoint another curate, then must I and my poor children be turned upon the street!

Be it so; God is in the street also!

Dec. 19, early, A.M.—I awoke very early to-day, and pondered what I shall do in my very difficult situation. I thought of Mr Sitting, my rich cousin at Cambridge; but poor people have no cousins, only the rich. Were New-year's day to bring me a bishop's mitre, according to Polly's dream, then I should have half England for my relations.

I have written and sent by the post the following letter to Dr Snarl: 'REVEREND SIR—I write with an anxious heart. It is said that your reverence intends to appoint another curate in my stead. I know not whether the report has any foundation, or whether it has arisen merely from my having mentioned to some persons the interview I had with you.

'The office with which you have intrusted me I have discharged with zeal and fidelity; I have preached the word of God in all purity; and I have heard no complaints. Even my inward monitor condemns me not. When I humbly asked for a little increase of my small salary, your reverence spoke of reducing the small stipend, which scarcely suffices to procure me and my family the bare necessaries of life. I now leave your humane heart to decide.

'I have laboured sixteen years under your reverence's pious predecessors, and a year and a half under yourself. I am now fifty years old, and my hair begins to grow gray. Without acquaintances, without patrons, without the prospect of another living, without the means of earning my bread in any other way, mine and my children's fate depends upon your compassion. If you fail us, there remains

no support for us but the beggar's staff.

'My daughters, gradually grown up, occasion, with the closest economy, increased expense. My eldest daughter, Jenny, supplies the place of a mother to her sister, and conducts our domestic concerns. We keep no servant; my daughter is maid, cook, washerwoman, tailoress, and even shoemaker, while I am the carpenter, mason, chimney-sweeper, wood-cutter, gardener, farmer, and wood-carrier of the household.

'God's mercy has attended us hitherto. We have had no sickness;

indeed we could not have paid for medicines.

'My daughters have in vain offered to do other work, such as washing, mending, and sewing; but C—— is a little place, and very rarely have they got any. Most persons here do their own house-

hold work; none can afford to employ others.

'I assure you, in all humility, it will be a hard task to carry me and mine through the year upon £20; but it will be harder still if I am to attempt it upon £15. But I throw myself on your compassion and on God, and pray your reverence at least to relieve me of this anxiety.'

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After I had finished this letter, I threw myself upon my knees (while Polly carried it to the post-office), and prayed for a happy issue to my communication. I then became wonderfully clear and calm in my mind. A word to God is always a word from God—so cheerfully did I come from my little chamber, which I had entered with a heavy heart.

Jenny sat at her work at the window with the repose and grace of an angel. Light seemed to stream from her looks. A slender sunbeam came through the window, and transfigured the whole place. I was in a heavenly frame of mind; and, seating myself

at the desk, wrote my sermon, 'On consolations in poverty.'

I preach in the pulpit as much to myself as to my hearers; and I come from church edified, if no one else does. If others do not receive consolation from my words, I find it myself. It is with the clergyman as with the physician; he knows the power of his medicines, but not always their effect upon the constitution of every patient.

The same day, forenoon.—This morning I received a note from a stranger who had remained over-night at the inn. He begs me,

on account of urgent affairs, to come to him.

I have been to him. I found him a handsome young man of about six-and-twenty, with noble features and a graceful carriage. He wore an old well-worn surtout, and boots which still bore the marks of yesterday's travel. His round hat, although originally of a finer material than mine, was still far more defaced and shabby. The young man appeared, notwithstanding the derangement of his dress, to be of good family. He had on at least a clean shirt of the finest linen, which perhaps had just been given him by some charitable hand.

He led me into a private room, begged pardon a thousand times for having troubled me, and proceeded to inform me, in a very humble manner, that he found himself in most painful circumstances, that he knew nobody in this place, where he had arrived last evening, and had therefore had recourse to me as a clergyman. He was, he added, by profession an actor, but unfortunately without employment, and intended to proceed to Manchester. He had expended nearly all his money, and had not enough to pay his fare at the innto say nothing of the expense of proceeding on his journey. Accordingly, he turned in his despair to me. Twelve shillings, he said, would be a great assistance to him. Giving his name, John Fleetman, he promised if I would favour him with that advance, that he would honourably and thankfully repay it, so soon as he was again connected with any theatre. There was no necessity for his depicting his distress to me so much at length, for his features expressed more trouble than his words. He probably read something of the same kind in my face, because, as he turned his eyes apon me, he seemed struck with alarm, and exclaimed: 'Will you leave me then, sir, without help?'

In reply, I stated to him that my own situation was full of embaring rassment, that he had asked of me nothing less than the fourth part of all the money I had in the world, and that I was in great uncertainty as to the further continuance of my office.

He immediately became cold in his manner, and, as it were, drew back into himself, while he remarked: 'You comfort the unfortunate with the story of your own misfortunes. I ask nothing of you. Is

there no one in C—— who has pity, if he has no wealth?'

I cast an embarrassed look at Mr Fleetman, and was ashamed to have represented my distressed situation to him as a reason for my refusal to assist him. I instantly thought over all my townsmen, and could not trust myself to name one; perhaps I did not know their hearts well enough.

I approached him, and laid my hand upon his shoulder, and said: 'Mr Fleetman, you grieve me. Have a little patience. You see I am poor; but I will help you if I can. I will give you an answer

in an hour.'

I went home. On the way I thought to myself, 'How odd! the stranger always comes first to me—and an actor to a clergyman! There must be something in my nature that attracts the wretched and the needy like a magnet. Whoever is in need comes to me, who have the least to give. When I sit at table with strangers, one of the company is sure to have a dog which looks steadily at what I am eating, and comes and lays his cold nose directly on my knee.'

When I arrived at home, I told the children who the stranger was, and what he wanted; requesting Jenny's advice. She said tenderly: 'I know, father, what you think, and therefore I have

nothing to advise.'

'And what do I think?'

'Why, that you will do unto this poor actor as you hope God

and Dr Snarl will do unto you.

I had thought no such thing, but I wished I had. I got the twelve shillings, and gave them to Jenny to carry to the traveller. I did not care to listen to his thanks; it humbles me. Ingratitude stirs

my spirit up; and, besides, I had my sermon to prepare.

The same day, eve.—The actor is certainly a worthy man. When Jenny returned from the inn, she had much to tell about him, and also about the kandlady. This woman had found out that her guest had an empty pocket, and Jenny could not deny that she had brought him some money. So Jenny had to listen to a long discourse on the folly of giving, when one has nothing himself, and the danger of helping vagrants, when one has not the wherewithal to clothe his own children. 'Charity should begin at home.' 'The shirt is nearer than the coat.' 'To feed one's own maketh fat.' and so on.

I had just turned to my sermon again, when Mr Fleetman entered. He could not, he said, leave C—— without thanking his benefactor,

by whose means he had been delivered from the greatest embarrassment. Jenny was just setting the table. We had a pancake and some turnips; and I invited the traveller to dine with us. He accepted the invitation. It was very timely, he intimated, for he had eaten a very scanty breakfast. Polly brought some beer. We had

not for a long time fared so well.

Mr Fleetman seemed to enjoy himself with us. He had quite lost that anxious look he had; yet there was the shy, reserved manner about him, which is peculiar to the unfortunate. He inferred that we were very happy, and of that we assured him. He supposed, also, that I was richer and better to do in the world than I desired to There, however, he was mistaken. Without doubt the appear. order and cleanliness of our parlour dazzled the good man, the clearness of the windows, the neatness of the curtains, of the dinner-table, the floor, and the brightness of our tables and chairs. One usually finds a great lack of cleanliness in the dwellings of the poor, because they do not know how to save. But order and neatness, as I always preached to my sainted wife and to my daughters, are great save-alls. Jenny is a perfect mistress therein. She almost surpasses her mother: and she is bringing up her sister Polly in the same way. Her sharp eves not a fly-mark can escape.

Our guest soon became quite familiar and intimate with us. He spoke more, however, of our situation than of his own. The poor man must have some trouble on his heart; I hope not upon his conscience. I remarked that he often broke off suddenly in conversation, and became depressed; then again he would exert himself

to be cheerful. God comfort him!

As he was quitting us after dinner, I gave him much friendly counsel. Actors, I know, are rather a light-minded folk. He promised me sacredly, as soon as he should have money, to send back my loan. He must be sincere in that, for he looked very honest, and several times asked how long I thought I should be able, with the remainder of my ready money, to meet the necessities of my household.

His last words were, 'It is impossible it should go ill with you in the world. You have heaven in your breast, and two angels of God at your side.' With these words he pointed to Jenny and Polly.

and so departed.

Dec. 20.—The day has passed very quietly, but I cannot say very agreeably, for the grocer Jones sent me his bill for the year. Considering what we had had of him, it was larger than we had expected, although we had had nothing of which we did not ourselves keep an account. Only he had raised the price of all his articles; otherwise, his account agreed honestly with ours.

The worst is the arrears of my last year's bill. He begged for the payment of the same, as he is in great need of money; but what creditor is not? The whole of what I owe him amounts to eighteen

shillings.

I went to see Mr Jones, who, on the whole, is a polite and reasonable man. I hoped to satisfy him by paying him in part, and promising to pay the remainder by Easter; but he was not to be moved, and he regretted that he should be forced to proceed to extremities. If he could he would gladly wait; but only within three days he would have to pay a note which had just been presented to him. I know that with a merchant credit is everything.

To all this there was nothing to be said in reply, after my repeated requests for delay had proved vain. Should I have let him go to law against me as he threatened? I sent him the money, and paid off the whole debt. But now my whole property has melted down to eleven shillings. Heaven grant that the actor may soon return what I lent him; otherwise I know not what help there is for us.

Again despairing! Go to, thou man of little faith; if thou knowest not, God knoweth. Why is thy heart cast down? What evil hast

thou done? Poverty is no crime.

Dec. 24.—One may be right happy after all, even when at the poorest. We have a thousand pleasures in Jenny's new cloak. She looks as beautiful in it as a bride; but she wishes to wear it the first

time abroad at church on New-year's Day.

Every evening she reckons up, and shews me how little expense she has incurred through the day. We are all in bed by seven o'clock, to save oil and coal; and that, we find, is no great hardship. The girls are so much the more industrious in the day, and they chat together in bed until midnight. We have a beautiful supply of turnips and vegetables; and with these Jenny thinks we can get through six or eight weeks without running in debt. That were a stroke of management without parallel. And until then, we all hope that Mr Fleetman will keep his word like an honest man, and pay us back the loan. If I appear to distrust him, it awakens all Jenny's zeal. She will allow nothing evil to be said of the comedian.

That personage is our constant topic. The girls especially make a great deal out of him. His appearance interrupted the uniformity of our life, and he will supply us with conversation for a full half-year. Pleasant is Jenny's anger when the mischievous Polly exclaims, 'But he is an actor!' Then Jenny tells of the celebrated actors in London who are invited to dine with noblemen and the princes of the royal family; and she is ready to prove that Fléetman will become one of the first actors in the world, for he has fine talents, a graceful address, and well-chosen phrases.

'Yes, indeed!' said the sly Polly to-day, very wittily, 'beautiful

phrases! He called you an angel.'

'And you too,' cried Jenny, somewhat vexed.

'But I was only thrown in to the bargain,' rejoined Polly; 'he looked only at you.'

This chat and childish raillery of my children awakened my

anxiety. Parents have many anxieties. Polly is growing up, Jenny is already eighteen, and what prospect have I of seeing these poor children provided for? Jenny is a well-bred, modest, handsome maiden; but all C—— knows our poverty. We are therefore little regarded, and it will be difficult to find a husband for Jenny. An angel without money is not thought half so much of now a days as a vixen with a bagful of guineas. Jenny's only wealth is her gentle face; that everybody looks kindly on. Even the grocer Jones, when she carried him his money, gave her a pound of almonds and raisins as a present, and told her how he was grieved to take my money, and that, if I bought of him, he would give me credit till Easter. He has certainly never once said so much to me.

When I die, who will take care of my desolate children? Who! the God of heaven. They are at least qualified to go to service any-

where. I will not distress myself about the future.

Dec. 26.—Two distressing days these have been. I have never had so laborious a Christmas. I preached my two sermons in two days several times in four different churches. The road was very bad, and the wind and weather fearful. Age is beginning to make itself felt, and I find I have not the freshness and activity I once had. Indeed, cabbage and turnips, scantily buttered, with

only a glass of fresh water, do not afford much nourishment.

I have dined both days with Farmer Hurst. The people in the country are much more hospitable than here in this small town, where nobody has thought of inviting me to dinner these six months. Ah! could I have only had my daughters with me at table! What profusion was there! Could they have only had for a Christmas feast what the farmer's dogs received of the fragments of our meal! They did, indeed, have some cake, and they are feasting on it now while I write. It was lucky that I had courage, when the farmer and his wife pressed me to eat more, to say that, with their leave, I would carry a little slice of the cake home to my daughters. The good-hearted people packed me a little bagful, and, besides, as it rained very hard, sent me home in their wagon.

Eating and drinking are indeed of little importance, if one has enough to satisfy his hunger and thirst. Yet it may not be denied that a comfortable provision for the body is an agreeable thing;

one's thoughts are clearer; one feels with more vivacity.

I am very tired. My conversation with Farmer Hurst was worth

noting; but I will write it off to-morrow.

Dec. 27.—I have no heart to write a word of my conversation with Farmer Hurst. This morning, as I was sitting by the fire, reflecting on various matters, a neighbour stepped in to ask if we had heard of a rumour that wagoner Brook at Watton Basset had destroyed himself. No such intelligence had reached us. The event gives us a new cause of distress. Brook was a relation of my sainted wife, and being a poor, though, as I believed, a conscientious and trustworthy

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man, I, some years ago, became security for him to Alderman Fieldson for the sum of £100.

The bond which I gave Mr Fieldson had never been cancelled. It was a thing hanging over my head, and the remembrance of it sometimes gave me trouble. Brook, I was told, had latterly been embarrassed in his circumstances, and had given himself up to drinking. Instead of bearing up under misfortunes, as was his duty, he has, I fear, sunk under them. I must visit Mr Fieldson, to know the worst.

Same day, noon.—I have been to Alderman Fieldson, who comforted me not a little. He said he had heard the report, but that it was very doubtful whether Brook had destroyed himself. There had been no authentic intelligence; so I returned home comforted, and prayed by the way that God would be gracious to me.

I had hardly reached the house, when Polly ran to meet me, exclaiming, almost breathless: 'A letter! a letter from Mr Fleetman, father, and I am sure it contains money! But the postage is seven-pence.' Jenny, with blushing looks, handed it to me before I had laid down my hat and staff. The children were half out of their wits with joy; so I pushed aside their scissors, and said: 'Do you not see, children, that it is harder to bear a great joy with composure than a great evil? I have often admired your cheerfulness when we were in the greatest want, and knew not where we were to find food for the next day; but now the first smile of fortune puts you beside yourselves. To punish you, I shall not open the letter until after dinner.'

Jenny would have it that it was not the money, but Mr Fleetman's honesty and gratitude that delighted her, and that she only wanted to know what he wrote, and how he was; but I adhered to my determination. This little curiosity must wisely learn to practise patience.

The same day, eve.—Our joy is turned into sorrow. The letter with the money came not from Mr Fleetman, but from the Rev. Dr Snarl. He gives me notice that our engagement will terminate at Easter, and he informs me that until that time I may look about for another situation, and that he has accordingly not only paid me up my salary in advance, that I may bear any travelling expenses which I may be at, but also directed the new vicar, my successor, to attend to the care of the parish.

It now appears that the talk of the people here in town was not wholly without foundation; and it may also be true, what is said, that the new vicar had received his appointment thus readily, because he has married a near relative of his reverence, a lady of doubtful reputation. So I must lose my office and my bread for the sake of such a person, and be turned into the street with my poor children, because a man can be found to buy my place at the price of his own

honour.

My daughters turned deadly pale when they found that the letter did not come from Mr Fleetman, but from the rector, and that the money, instead of being the generous return of a grateful heart, was the last wretched gratuity for my long and laborious services. Polly threw herself sobbing into a chair, and Jenny left the room. My hand trembled as I held the letter containing my formal dismissal. But I went into my little chamber, locked myself in, and fell upon my knees and prayed, while Polly wept aloud.

I rose from my knees refreshed and comforted, and took my Bible; and the first words upon which my eyes fell were, 'Fear not, for I have redeemed thee, I have called thee by thy name; thou art

mine.'

All fear now vanished out of my heart. I looked up, and said:

'Yea, Lord, I am thine.'

As Polly appeared to have ceased weeping, I went back into the parlour; but when I saw her upon her knees praying, with her clasped hands resting on a chair, I drew back and shut the door

very softly, that the dear soul might not be disturbed.

After some time I heard Jenny come in. I then returned to my daughters, who were sitting at the window; and saw by Jenny's eyes that she had been giving relief to her anguish in solitude. They both looked timidly at me. I believe they feared lest they should see despair depicted on my countenance; but when they saw that I was quite composed, and that I addressed them with cheerfulness, they were evidently relieved. I took the letter and the money, and humming a tune, threw them into my desk. They did not once allude to what had happened the whole day. This silence in them was owing to a tender consideration for me; with me it was fear lest I should expose my weakness before my children.

Dec. 28.—It is good to let the first storm blow over without looking one's troubles too closely in the face. We have all had a good night's sleep. We talk freely now of Dr Snarl's letter, and of my loss of office, as of old affairs. We propose all kinds of plans for the future. The bitterest thing is, that we must be separated. We can think of nothing better than that Jenny and Polly should go to service in respectable families, while I betake myself to my travels to seek somewhere a place and bread for myself and children.

I am glad that Polly has again recovered her usual cheerfulness. She brings out again her dream about the bishop's mitre, and gives us much amusement. She counts almost too superstitiously upon a New-year's gift. Dreams are surely nonsense, and I do not believe in them; yet there is a mystery about them not without interest.

As soon as the new vicar, my successor, shall have arrived, and is able to assume the office, I shall hand over to him the parish-books. and take my way in search of bread elsewhere. In the meantime I will write to a couple of old friends at Salisbury and Warminster, to request them to find good places for my daughters as cooks,

seamstresses, or chambermaids. Jenny would be an excellent governess for little children.

I shall not leave my daughters here. The place is poor, the people are unsocial, proud, and have the narrow ways of a small town. They talk now of nothing but the new vicar; while some are sorry that I must leave; but I know not who takes it most to heart.

Dec. 29.—I have written to-day to my Lord Bishop of Salisbury, and laid before him in lively terms the sad, helpless situation of my children, and my long and faithful services in the vineyard of the Lord. He is said to be a humane, pious man. May God touch his heart! Among the three hundred and four parishes of the county of Wiltshire, there must certainly be found for me at least some little corner! I do not ask much.

Dec. 30.—The bishop's mitre that Polly dreamt of must soon make its appearance, otherwise I shall have to go to prison. I see now

very plainly that the jail is inevitable.

I am very weak, and in vain do I exert myself to practise my old heroism. Even strength fails me for fervent prayer. My distress is too much for me to bear.

Yes, the jail is unavoidable. I will say it to myself plainly, that I

may become accustomed to the prospect.

The All-Merciful have mercy on my dear children! I may not—

I cannot speak to them of this dreary prospect.

Perhaps a speedy death will save me from the disgrace. I feel as if my very bones would crumble away; fever-shivering in every

limb-I cannot write for trembling.

Some hours after.—Already I feel more composed. I would have thrown myself into the arms of God, and prayed; but I was not well. I lay down on my bed. I believe I have slept; perhaps also I fainted. Some three hours have passed. My daughters have covered my feet with pillows. I am weak in body, but my heart is again fresh. Everything which has happened, or which I have heard, flits before me like a troubled dream.

So the wagoner Brook has indeed made away with himself. Alderman Fieldson has called and given me the intelligence. He had the coroner's account, together with the notice of my bond. Brook's debts are very heavy. I must, as a matter of course, account to Withell, a woollen-draper of Trowbridge, for the hundred pounds.

Mr Fieldson had good cause to commiserate me heartily. A hundred pounds! How shall I ever obtain so much money? All that I and my children have in the world would not bring a hundred shillings. Brook used to be estecmed an upright and wealthy man; and I never thought that he would come to such an end. The property of my wife was consumed in her long sickness, and I had to sacrifice the few acres at Bradford which she inherited. Now, I am a beggar. Ah! if I were only a free beggar! I must go to

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prison if Mr Withell is not merciful; for it is impossible for me even to think of paying him.

Same day, eve.—I am quite ashamed of my weakness. What! to faint! to despair! Fy! And yet believe in a Providence! and a

minister of the Lord! Fy, Thomas!

I have recovered my composure, and done what I should. I have just carried to the post-office a letter to Mr Withell at Trowbridge, in which I have stated my utter inability to pay the bond, and confessed myself ready to go to jail. If he has any human feeling, he will have pity on me; if not, he may drag me away whithersoever he will.

When I came from the office, I put the courage of my children to the proof: I wished to prepare them for the worst. Ah! the maidens were more of men than the man—more of Christians than the priest.

I told them of Brook's death, of my debt, and of the possible consequences; to all which they listened earnestly, and in great

sorrow.

'To prison!' said Jenny, silently weeping, while she threw her arms around me. 'Ah, poor dear father; you have done no wrong, and yet have to bear so much! I will go to Trowbridge; I will throw myself at Withell's feet; I will not rise until he releases you!'

'No,' cried Polly, sobbing, 'do not think of such a thing. Tradesmen are tradesmen. They will not, for all your tears, give up a farthing of our father's debt. I will go to the woollen-draper, and bind myself to live upon bread and water, and be his slave, until I

have paid him with my labour what father owes.'

In forming such plans, they gradually grew more composed; but they saw also the vanity of their hopes. At last, said Jenny: 'Why form all these useless plans? Let us wait for Mr Withell's answer. If he will be cruel, let him be so. God is also in the jail. Father, I say, go to prison. Perhaps you will be better there than with us in our poverty. Go, for you go without guilt. There is no disgrace in it. We will both go to service, and our wages will procure you everything needful. I will not be ashamed even to beg. To go a-begging for a father has something honourable and holy in it. We will come and visit you from time to time. You will certainly be well taken care of; and we will fear no more.'

'Jenny, you are right,' said Polly; 'whoever fears, does not believe in God. I am not afraid. I will be cheerful—as cheerful

as I can be, separated from father and you.'

Such conversations cheered my heart. Fleetman was right when

he said that I had two angels of goodness at my side.

Dec. 31.—The year is ended. Thanks be to Heaven, it has been, with the exception of some storms, a right beautiful and happy year! It is true we often had scarcely enough to eat—still, we have had enough. My poor salary has often occasioned me bitter cares

—still, our cares have had their pleasures. And now I scarcely possess the means of supporting myself and my children half a year longer. But how many have not even as much, and know not where to get another day's subsistence! My place I assuredly have lost: in my old age I am without office or bread. It is possible that I shall spend the next year in a jail, separated from my good daughters. Still, Jenny is right; God is there also in the jail!

To a pure conscience there is no hell even in hell, and to a bad

heart no heaven in heaven. I am very happy.

Whoever knows how to endure privation, is rich. A good conscience is better than that which the world names honour. As soon as we are able to look with indifference upon what people call honour and shame, then do we become truly worthy of honour. He who can despise the world, enjoys heaven. I understand the gospel better every day, since I have learned to read it by the light of experience. The scholars at Oxford and Cambridge study too closely the letter, and forget the spirit. Nature is the best interpreter of the Scriptures.

With these reflections I conclude the year.

I am very glad that I have now for some time persevered in keeping this journal. Everybody should keep one; because one may learn more from himself than from the wisest books. When, by daily setting down our thoughts and feelings, we in a manner portray ourselves, we can see at the end of the year how many different faces we have. Man is not always like himself. He who says he knows himself, can answer for the truth of what he says only at the moment. Few know what they were yesterday; still fewer what they will be to-morrow.

A day-book is useful also, because it helps us to grow in faith in God and Providence. The whole history of the world does not teach us so much about these things as the thoughts, judgments,

and feelings of a single individual for a twelvemonth.

I have also had this year new confirmation of the truth of the old saying, 'Misfortunes seldom come singly; but the darkest hour is just before morning.' When things go hard with me, then am I most at my ease; always excepting the first shock, for then I please myself with the prospect of the relief which is sure to succeed, and I smile because nothing can disturb me. On the other hand, when everything goes according to my wishes, I am timid and anxious, and cannot give myself up freely to joy: I distrust the continuance of my peace. Those are the hardest misfortunes which we allow to take us by surprise. It is likewise true that trouble looks more terrible in the distance than when it is upon us. Clouds are never so black when near as they seem in the distance. When we grasp them, they are but vapours.

My misfortunes have taught me to consider, with amazing

quickness, what will be their worst effect upon me; so I prepare

myself for the worst, and it seldom comes.

This also I find good—I sometimes play with my hopes, but I never let my hopes play with me; so I keep them in check. I have only to remember how rarely fortune has been favourable to me; then all air-castles vanish, as if they were ashamed to appear before me. Alas for him who is the sport of his visions! He pursues Will-o'-the-wisps into bogs and mire.

New-year's day, morning.—A wonderful and sad affair opens the

year. Here follows its history.

Early, about six o'clock, as I lay in bed thinking over my sermon, I heard a knocking at the front door. Polly was up, and in the kitchen. She ran to open the door, and see who was there. Such early visits are not usual with us. A stranger presented himself with a large box, which he handed to Polly with these words: 'Mr ——' (Polly lost the name) 'sends this box to the Rev. Vicar,

and requests him to be very careful of the contents.'

Polly received the box with joyful surprise. The man disappeared. Polly tapped lightly at my chamber-door to see whether I was awake. I answered, and she came in; and wishing me 'A happy New-year,' as well as 'Good-morning,' added, laughing, 'You will see now, dear father, whether Polly's dreams are not prophetic. The promised bishop's mitre is come!' And then she told me how a New-year's gift had been given her for me. It vexed me that she had not asked more particularly for the name of my unknown patron or benefactor.

While she went out to light a lamp and call Jenny, I dressed myself. I cannot deny that I was burning with curiosity; for hitherto the New-year's presents for the Vicar of C—— had been as insignificant as they were rare. I suspected that my patron, the farmer, whose good-will I appeared to have won, had meant to surprise me with a box of cake, and I admired his modesty in sending me the present before it was daylight.

When I was dressed, and entered the parlour, Polly and Jenny were standing at the table on which lay the box directed to me, carefully sealed, and of an unusual size. I had never seen exactly such a box before. I lifted it, and found it pretty heavy. In the

lid were two smootly-cut round holes.

With Jenny's help I opened the box very cautiously, as I had been directed to handle the contents carefully. A fine white cloth was removed, and lo!——But no, our astonishment is indescribable.

We all exclaimed with one voice, 'Good God!'

There before us lay a little child asleep, some six or eight weeks old, dressed in the finest linen, with rose-coloured ribbons. Its little head rested upon a soft blue silk cushion, and it was well wrapt up in a blanket. The covering, as well as the little cap, was trimmed with costly Flanders lace.

At such an unexpected sight we stood some minutes gazing with silent wonder. At last Polly broke out into a comical laugh, and cried: 'What shall we do with it? This is no bishop's mitre!' Jenny timidly touched the cheek of the sleeping babe with the point of her finger, and in a tone full of pity said: 'Poor dear little creature! thou hast no mother, or might as well have no mother! Great God! to cast off such a lovely, helpless being! Only see, father, only see, Polly, how peacefully and trustfully it sleeps, unconscious of its fate, as if it knew that it is lying in God's hand. Sleep on, thou poor forsaken one! Thy parents are perhaps too high in rank to care for thee, and too happy to permit thee to disturb their happiness. Sleep on, we will not cast thee out. They have brought thee to the right place. Poor as we are, I will be thy mother.'

As Jenny was speaking, two large tears fell from her eyes. I caught the pious, gentle-hearted creature to my breast, and said: 'Be a mother to this little one! The step-children of fortune come to her step-children. God is trying our faith—no, he does not try it, he knows it; therefore is this forsaken little creature brought to us. We do not, indeed, know how we shall subsist from one day to another, but He knows who has appointed us to be parents to this

orphan.

In this manner the matter was soon settled. The child continued to sleep sweetly on. In the meanwhile we exhausted ourselves in conjectures about its parents, who were undoubtedly known to us, as the box was directed to me. Polly, alas! could tell us nothing more of the person who brought it than she had already told. Now, while the little thing sleeps, and I run over my New-year's sermon upon 'the power of the Eternal Providence,' my daughters are holding a council about the nursing of the poor little stranger. Polly exhibits all the delight of a child. Jenny appears to be much moved. With me it is as if I entered upon the New-year in the midst of wonders, and—it may be superstition, or it may be not—as if this little child were sent to be our guardian angel in our need. I cannot express the feelings of peace, the still happiness which I have.

Same day, eve.—I came home greatly exhausted and weary with the sacred labours of the day. I had a long and rugged walk; but I was inspirited by a happy return home, by the cheerfulness of my daughters, by our pleasant little parlour. The table was ready laid for me, and on it stood a little wine, a New-year's present from an unknown benevolent hand.

The looks of the lovely little child in Jenny's arms refreshed me above all things. Polly shewed me the beautiful little bed of our nursling, the dozen fine napkins, the dear little caps and night-clothes which were in the box, and then a sealed packet of money directed to me, which they found at the feet of the child when it awoke, and they took it up.

Anxiously desirous of learning something of the parentage of our little unknown inmate, I opened the packet. It contained a roll of

twenty guineas, and a letter as follows:

Relying with entire confidence upon the piety and humanity of your reverence, the unhappy parents of this dear child commend it to your care. Do not forsake it. We will testify our gratitude when we are at liberty to make ourselves known to you. Although at a distance, we shall keep a careful watch, and know everything that you do. The dear boy is named Alfred; he has been baptised. His board for the first quarter accompanies this. The same sum will be punctually remitted to you every three months. Therefore, take the child. We commend him to the tenderness of your

daughter Jenny.'

When I had read the letter, Polly leaped with joy, and cried: 'There, then, is the bishop's mitre!' Bountiful Heaven! how rich had we suddenly become. We read the letter a dozen times. We did not trust our eyes to look at the gold upon the table. What a New-year's present! From my heaviest cares for the future was I thus suddenly relieved; but in what a strange and mysterious way! In vain did I think over all the people I knew, in order to discover who it might be that had been forced by birth or rank to conceal the existence of their child, or who were able to make such a liberal compensation for a simple service of Christian charity. I tasked my recollection, but I could think of no one; and yet it was evident that these parents were well acquainted with me and mine.

Wonderful, indeed, are the ways of Providence.

Jan. 2.—Fortune is heaping her favours upon me. This morning I again received a packet of money, £12, by the post, with a letter from Mr Fleetman. It is too much. For a shilling he returns me a pound. Things must have gone well with him. He says as much. I cannot, alas! thank him, for he has forgotten to mention his address. God forbid I should be lifted up foolishly with my present riches. I hope now in time to pay off honestly my bond to Mr Withell.

When I told my daughters that I had received a letter from Mr Fleetman, there was a new occasion for joy. I do not exactly understand what the girls have to do with this Mr Fleetman. Jenny coloured, and Polly jumped up laughingly, and held up both her hands before Jenny's face, and Jenny behaved as if she was seriously

vexed with the playful girl.

I read out Fleetman's letter; but I could scarcely do it, for the young man is an enthusiast. He writes many flattering things which I do not deserve; exaggerating everything, even indeed when he speaks of the good Jenny. I pitied the poor girl while I read. I did not dare to look at her. The passage, however, which relates to her is worthy of note, and ran thus:

Excellent sir, when I went from your door, I felt as if I were

quitting a father's roof for the bleak and inhospitable world. I shall never forget you, never forget how happy I was with you. I see you now before me, in your rich poverty, in your Christian humility, in your patriarchal simplicity. And the lovely, fascinating Polly; and ah! for your Jenny I have no words! In what words shall one describe the heavenly loveliness by which everything earthly is transfigured? Forever shall I remember the moment when she gave me the twelve shillings, and the gentle tone of consolation with which she spoke to me. Wonder not that I have the twelve shillings still. I would not part with them for a thousand guineas. I shall soon, perhaps, explain everything to you personally. Never in my life have I been so happy or so miserable as I now am. Commend me to your sweet daughters, if they still bear me in remembrance.'

I conclude, from these lines, that he intends to come this way again; and the prospect gives me pleasure. In his unbounded gratitude, the young man has perhaps sent me his all, because I once lent him half of my ready money. That grieves me. He seems to be a thoughtless youth, and yet he has an honest heart.

We have great delight in the little Alfred. The little thing laughed to-day upon Polly as Jenny was holding him, like a young mother, in her arms. The girls are more handy with the little citizen of the world than I had anticipated; but it is a beautiful child. We have bought him a handsome cradle, and provided abundantly for all his little wants. The cradle stands at Jenny's bedside. She watches day and night like a guardian spirit over her tender charge.

Jan. 3.—To-day Mr Curate Thomson arrived with his young wife, and sent for me. I accordingly went to him immediately at the inn. He is an agreeable man, and very polite. He informed me that he was appointed my successor in office; that he wished, if I had no objections, to enter immediately upon his duties, and that I might occupy the parsonage until Easter; he would, in the meanwhile, take up his abode in lodgings prepared for him at Alderman Fieldson's

Alderman Fieldson's.

I replied that, if he pleased, I would resign my office to him immediately, as I should thus be more at liberty to look out for another situation. I desired only permission to preach a farewell sermon in the churches in which I had for so many years declared the word of the Lord.

With this he was quite satisfied, and said that he would come in

the afternoon to examine the state of the parsonage.

He has been here with his wife and Alderman Fieldson. His lady was somewhat haughty, and appears to be of high birth, for there was nothing in the house that pleased her; and she hardly deigned to look at my daughters. When she saw the little Alfred in the cradle, she turned to Jenny, and asked whether she were

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already married. The good Jenny blushed up to her hair, and shook her little head by way of negative, and stammered out something. I had to come to the poor girl's assistance. The lady listened to my story with great interest, and drew up her mouth, and shrugged her shoulders. It was very disagreeable, but I said nothing. I invited them to take a cup of tea; but they declined. Mr Curate appeared to be very obedient to the slightest hint of the lady.

We were very glad when this unpleasant visit was over.

Fan. 6.—Mr Withell is an excellent man, to judge from his letter. He sympathises with me in regard to my unfortunate bond, and comforts me with the assurance, that I must not disquiet myself if I am not able to pay it for ten years, or ever. He appears to be well acquainted with my circumstances, for he alludes to them very cautiously. He considers me an honest man; and that gratifies me most. He shall not find his confidence misplaced. I shall go to Trowbridge as soon as I can, and pay Mr Withell Fleetman's £12

sterling, as an instalment of my monstrous debt.

Although Jenny insists that she sleeps soundly, that little Alfred is very quiet o' nights, and only wakes once, when she gives him a drink out of his little bottle, yet I feel anxious about the maiden. She is not so lively by far as formerly, although she seems to be much happier than when we were every day troubled about our daily bread. Sometimes she sits with her needle, lost in a reverie, dreaming with open eyes; or her hands, once so active, lie sunk upon her lap. When she is spoken to she starts, and has to bethink herself what was said. All this evidently comes from the interruption of her proper rest; but she will not hear a word of it. We cannot even persuade her to take a little nap in the daytime. She declares that she feels perfectly well.

I did not imagine that she had so much vanity. Fleetman's praises have not displeased her. She has asked me for his letter to read once more. And she has not yet returned it to me, but keeps it in her work-basket! Well, I cannot be angry. Her feel-

ings are quite natural.

Jan. 8.—My farewell sermon was accompanied with the tears of most of my hearers. I see now at last that my parishioners love me. They have expressed their obligations on all hands, and loaded me with gifts. I never before had such an abundance of provisions in the house, so many dainties of all kinds, and so much wine. A hundredth part of my present plenty would have made me account myself over-fortunate in past days. We are really swimming in plenty. But a goodly portion has already been disposed of. I know some poor families in C——, and Jenny knows even more than I. The dear people share in our pleasures.

I was moved to the inmost by my sermon. With tears had I written it. It was a sketch of my whole past course, from my call

and settlement. I am driven from the vineyard as an unprofitable servant, and yet I have not laboured as a hireling. Many noble vines have I planted, many deadly weeds cut away. I am driven from the vineyard where I have watched, and taught, and warned, and comforted, and prayed. I have shrunk from no sick-bed; I have strengthened the dying for the last conflict with holy hope; I have gone after sinners; I have not left the poor desolate; I have called back the lost to the way of life. Ah! all these souls that were knit to my soul are torn from me-why should not my heart bleed? But God's will be done!

Gladly would I now offer to take charge of the parish without salary, but my successor has the office. I have been used to poverty from my birth, and care has never forsaken me since I stepped out of my boy's shoes. I have enough for myself and my daughters in little Alfred's board. We shall be able, indeed, to lay up something. I would never again complain of wind and weather beating against my gray hairs, could I only continue to break the bread of life to my flock.

Well, be it so! I will not murmur. The tear which drops upon this page is no tear of discontent. I ask not for riches and good days, nor have I ever asked; but, Lord! Lord! drive not thy servant for ever from thy service, although his powers are small. Let me again enter thy vineyard, and with thy blessing win souls.

Jan. 13.—My journey to Trowbridge has turned out beyond all expectation. I arrived late with weary feet at the pleasant little old city, and could not rouse myself from sleep until late the next morning. After I had put on my clean clothes (I had not been so finely dressed since my wedding-day—the good Jenny shews a daughter's care for her father), I left the inn and went to Mr Withell's. He lives in a splendid great house.

He received me somewhat coldly at first; but when I mentioned my name, he led me into his little office. Here I thanked him for his great goodness and consideration, told him how I had happened to give the bond, and what hard fortunes had hitherto been mine.

I then laid my £12 upon the table.

Mr Withell looked at me for a while in silence, with a smile, and with some emotion. He then extended his hand, and shook mine, and said: 'I know all about you. I have informed myself particularly about your circumstances, and I learn you are an honest man. Take your £12 back. I cannot find it in my heart to rob you of your New-year's present. Rather let me add a pound to it, to remember me by.

Saying so, he arose, brought a paper from another room, opened it, and said: 'You know this bond and your signature? I give it to you and your children.' He tore the paper in two, and placed it in my hand.

I could not find words, I was so deeply moved. My eyes filled.

He saw that I would thank him, but could not, and he said: 'Hush! hush! not a syllable, I pray you. This is the only thanks I desire of you. I would gladly have forgiven poor Brook the debt, had he

only dealt frankly with me.'

How generous! I do not know a more noble-hearted man than Mr Withell. He was too kind to me. Desiring me to relate my past history, he introduced me to his wife, and to the young gentleman his son. He had my little bundle, containing my old clothes, brought from the inn, and kept me at his house. The entertainment was princely. The chamber in which I slept, the carpet, the bed, were so splendid and costly, that I hardly dared to make use of them.

Next day Mr Withell sent me home in his own elegant carriage. I parted with my benefactor with a heart deeply moved. My children wept with me for joy when I shewed them the bond. 'See,' said I, 'this light piece of paper was the heaviest burden of my life, and now it is generously cancelled. I pray for the life and

prosperity of our deliverer!'

Jan. 16.—Yesterday was the most remarkable day of my life. My daughters and I were sitting together in the forenoon; I was rocking the cradle, Polly was reading aloud, and Jenny was seated at the window with her needle, when she suddenly jumped up, and then fell back again deadly pale into her chair. We were of course all alarmed, and cried: 'What is the matter?' Jenny, with a smile, said, 'He is coming!'

The door now opened, and in came Mr Fleetman in a beautiful travelling cloak. We greeted him right heartily, and were truly glad to see him so unexpectedly, and, as it appeared, in so much better circumstances than before. He embraced me, kissed Polly, and bowed to Jenny, who had not yet recovered from her agitation. Her pale looks, however, did not escape him. He inquired anxiously about her health. Polly replied to his questions, and he then kissed Jenny's hand, as though he would beg her pardon for having occasioned her such an alarm. But there was nothing to be said about it, for the poor girl coloured again like a newly-blown rose.

I called for refreshments, to treat my guest and benefactor better than on a former occasion; but he declined, as he could not remain long, and he had company at the inn. Yet, at Jenny's request, he

sat down and took some wine with us.

As he had spoken of the company which had come with him, I supposed that it must be a company of comedians, and inquired whether they intended to stop and play in C——, observing that the place was too poor. He laughed out, and replied: 'Yes, we shall play a comedy, but altogether gratis.' Polly was beside herself with joy, for she had long wanted to see a play. She told Jenny, who had gone for the cake and wine. Polly inquired if any actors had come along with him? 'No,' said he, 'only a lady and gentleman, but excellent performers.'

Jenny seemed more than usually serious, and casting a sad look at Fleetman, inquired if he also should appear. This was asked in a tone peculiarly soft, yet very penetrating, which I have seldom observed in her, and only upon rare occasions, and at the most serious moments.

Poor Fleetman himself trembled at her tone, so like the voice of the angel of doom. He looked up to her with an earnest gaze, and appeared to struggle with himself for an answer, and then advancing towards her a step, he said emphatically: 'Indeed,

madam, you alone can decide that!'

Jenny dropped her eyes; he continued to speak; she answered. I could not comprehend what they were about. They spoke—Polly and I listened with the greatest attention, but we neither of us understood a word, or rather we heard words without any sense. And yet Fleetman and Jenny appeared not only to understand one another perfectly, but what struck me as very strange, Fleetman was deeply moved by Jenny's answers, although they expressed the veriest trifles. At last Fleetman clasped his hands passionately to his breast, raised his eyes, streaming with tears, to heaven, and with an impressive appearance of emotion, exclaimed: 'Then am I indeed unhappy!' Polly could hold out no longer. With a comical vivacity she

Polly could hold out no longer. With a comical vivacity she looked from one to the other, and at last cried out: 'I do believe

that you two are beginning to act already!'

He pressed Polly's hand warmly, and said: 'Ah that it were so!' I put an end to the confusion by pouring out the wine. We drank to the welfare of our friend. Fleetman turned to Jenny, and stammered out: 'Miss, in earnest, my welfare?' She laid her hand upon her heart, cast down her eyes, and drank.

Fleetman immediately became more composed. He went to the cradle, looked at the child, and when Polly and I had told him its history, he said to Polly, with a smile: 'Then you have not discovered

that I sent you this New-year's gift?'

The whole of us exclaimed in utter amazement: 'Who, you?'

Our guest then proceeded to relate what follows: 'My name,' said he, 'is not Fleetman. I am Sir Cecil Fairford. My sister and myself have been kept out of our rightful property by my father's brother, who took advantage of certain ambiguous conditions in my father's will, and involved us in a long and entangled lawsuit. We have hitherto lived with difficulty upon the little property left us by our mother, who died early. My sister has suffered most from the tyranny of her uncle, who was her guardian, and who had destined her for the son of an intimate and powerful friend of his. My sister, on the contrary, was secretly engaged to the young Lord Sandom, whose father, then living, was opposed to their marriage. Without the knowledge either of my uncle or the old lord, they were privately married, and the little Alfred is their son. My sister, under the pretence of benefiting her health, and availing herself

of sea-bathing, left the house of her guardian, and put herself under my protection. When the child was born, our great concern was to find a place for it where it would have the tenderest care. I accidentally heard a touching account of the poverty and humanity of the parish minister of C——, and I came hither in disguise to satisfy myself. The manner in which I was treated by you decided me.

I have forgotten to mention that my sister never returned to her guardian; for, about six months ago, I won the suit against him, and entered into possession of my patrimony. My uncle instituted a new suit against me for withdrawing my sister from his charge; but the old Lord Sandom died suddenly a few days ago of apoplexy, and my brother-in-law has made his marriage public; so that the suit falls to the ground, and all cause for keeping the child's birth secret is henceforth removed. Its parents have now come with me to take the child away, and I have come to take away you and your family, if the proposal I make you shall be accepted.

'During the lawsuit in which I have been engaged, the living which is in the gift of my family has remained unoccupied. I have at my disposal this situation, which yields over £200 per annum. You, sir, have lost your situation here: I shall not be happy unless

you come and reside near me, and accept this living.'

I cannot tell how much I was affected at these words. My eyes were blinded with tears of joy; I stretched out my hands to the man who came a messenger from heaven; I fell upon his breast; Polly threw her arms around him with a cry of delight. Jenny thankfully kissed the baronet's hand; but he snatched it from her with visible

agitation, and hurriedly left us.

My happy children were still holding me in their embraces, and we were still mingling our tears and congratulations, when the baronet returned, bringing his brother-in-law, Lord Sandom, with his wife, who was an uncommonly beautiful young lady. Without saluting us, she ran to the cradle of her child. She knelt down over the little Alfred, kissed his cheeks, and wept freely with mingled pain and delight. Her husband raised her up, and had much trouble in composing her.

When she had recovered her composure, and apologised to us all for her behaviour, she thanked first me, and then Polly, in the most touching terms. Polly disowned all obligation, and pointed to Jenny, who had withdrawn to the window, and said: 'My sister

there has been its mother!'

Lady Sandom now approached Jenny, gazed at her long in silence, and with evidently delighted surprise, and then glanced at her brother with a smile, and folded Jenny in her arms. The dear Jenny, in her modesty, scarcely dared to look up. 'I am your debtor,' said my lady; 'but the service you have rendered to a mother's heart it is impossible for me to repay. Become a sister to

me, lovely Jenny; sisters can have no obligations between them.' As they embraced each other, the baronet approached. 'There stands my poor brother,' said my lady; 'as you are now my sister, he may stand nearer to your heart, dear Jenny; may he not?'

Jenny blushed, and replied: 'He is my father's benefactor.'

'Will you not be,' replied the lady, 'the benefactress of my poor brother? I pray you look kindly on him. If you only knew how he loves you!'

The baronet took Jenny's hand and kissed it, and said, as she struggled to withdraw it: 'Madam, will you be unkind to me? I cannot be happy without this hand.' Jenny, much disturbed, let her hand remain in his. The baronet then led my daughter to me, and begged me for my blessing.

'Jenny,' said I, 'it depends upon thee. Do we dream? Canst

thou love him? Do thou decide.

She then turned to the gentleman, who stood before her deeply agitated, and cast upon him a full, penetrating look, and then took his hand in both hers, pressed it to her breast, looked up to heaven, and softly whispered: 'God has decided.'

Satisfied with the decision, I blessed my son and daughter, who embraced each other. There was a solemn silence, and all eyes

were wet with a pleasing emotion.

Suddenly the lively Polly sprung up, laughing through her tears, and flinging herself on my neck, she cried: 'There! now we have it! The New-year's gift—a gift better than a bishop's mitre.'

The vivacity of Polly awoke little Alfred.

It is in vain for me to continue the description of what occurred during this happy day. I am continually interrupted; my happy heart, full to overflowing, is thankful to God for all his goodness.

^{*} This singularly touching narrative of certain passages in the life of a poor vicar in Wiltshire, is translated from the German of Zchokke, who took it from a fugitive sketch that appeared in England many years ago, and which probably gave Goldsmith the first hint towards his Vicar of Wakefield. The present translation from Zchokke, who has improved considerably on the original, is (some emendations excepted) by an American writer, by whom it was contributed to The Gift for 1844, published by Carey and Hart, Philadelphia. It is almost unnecessary to add, that no vicar or curate can be exposed in the present day to hardships so great as those endured by the hero of the piece: and we hope that men of the Dr Snarl species are now extinct.

A PARISIAN STORY.

EVERY nation possesses prejudices respecting its neighbours. A prejudice is an opinion formed without having in the first place acquired a sufficient body of facts whereon to form a correct judgment. The French entertain some strange prejudices respecting the English; they consider them to be generally a coarse, overbearing, money-making, and sensual people, without taste or delicacy of feeling. The English, with equal injustice and ignorance of facts, are in the habit of considering the French, universally, to be silly, frivolous, and deceitful, with the additional misfortune of being very poor and very idle. Anxious to correct all such wrong impressions, which tend to foster national animosities, we shall tell a little story respecting a young Frenchwoman, whose character for industry, good sense, and benevolence, whilst no way singular in her own country, could not be excelled in ours.

The name of our humble heroine was Blanche Raymond, and her occupation was that of a washerwoman in one of the large barges which are moored, for the convenience of her class, within the margin of the Seine. At boats of this kind, all the laundry washing of Paris is performed—the clear water of the river as it runs past with a piece of soap, and a mallet to beat the clothes, being the sole means of purification. The labour is considerable, and the payment for it small, yet no women are more cheerful than these laundresses. Exposed at all seasons to perpetual damp, which saturates their garments, and prematurely stiffens their limbs, they still preserve their national vivacity, which finds vent in many a song; and, in a spirit of cordial fellowship, sympathise with each other in prosperity or adversity. Earning on an average little more than two francs, or twentypence daily, they nevertheless agree to set aside rather more than twopence out of that sum towards a fund for unforeseen calamities, and, above all, to prevent any of their number, who may be laid aside by illness, from being reduced to seek other relief. The greater part of them are married women with families.

Unromantic as is the occupation of these women, yet incidents occur among them, as in every other class of society, however

humble, of the most interesting and pathetic kind. This was well illustrated in the life of our heroine, Blanche Raymond. Blanche was no more than twenty-three years of age, endowed with a moopen smiling countenance, great strength of body, and uncommon eleverness of hand. She had lost her mother some time before, and being now the only stay of her old blind father, a superannuated labourer on the quay, she had to work double-tides for their joint support; though the old man, by earning a few pence daily by weaving nets, was saved the feeling of being altogether a burden on his child.

There was a nobleness in Blanche's conduct towards her poor old father, that mounted like a brilliant star above the ordinary circumstances of her condition. After preparing her father's breakfast, at his lodgings opposite the stairs in the quay leading to her boat, she went down to it at seven o'clock every morning, came home at noon to give the poor blind man his dinner, and then back to work for the rest of the day. Returning at its close to her humble hearth, where cleanliness and comfort reigned, she would take out her old father for an hour's walk on the quay, and keep him merry by recounting all the gossip of the boat; not forgetting the attempts at flirtation carried on with herself by certain workmen in a merino manufactory, whose pressing-machine immediately adjoined the laundress's bark. and who never failed, in going to and fro twenty times a day, to fling passing compliments at the belle blanchisseuse (pretty laundress). The cheerful old man would re-echo the light-hearted laugh with which those tales were told; but following them up with the soberer counsels of experience over the closing meal of the day, then fall gently asleep amid the cares and caresses of the most dutiful of daughters.

Three years had rolled away since her mother's death, and Blanche, happily engrossed between her occupation abroad and her filial duties at home, had found no leisure to listen to tales of love. There was, however, among the young merino-dressers a tall, fine, handsome fellow, named Victor, on whose open countenance were written dispositions corresponding to those of his fair neighbour; whom, instead of annoying with idle familiarities, he gradually won upon, by respectful civility towards herself, and still more by kind

inquiries after her good old father.

By degrees he took upon him to watch the time when she might be toiling, heavily laden, up the steep slippery steps; and by coming just behind her, would slyly ease her of more than half her burden. On parting at the door of one of the great public laundry establishments (where the work begun on the river is afterwards completed), he would leave her with the hopeful salutation, in which more was meant than met the ear, of, 'Good-bye, Blanche, till we meet again.'

Such persevering attentions could hardly be repaid with indifference; and Blanche was of too kindly a nature to remain unmoved

by them. But while she candidly acknowledged the impression they had made on her heart, and that it was one which she would carry to her grave, she with equal honesty declared that she could allow no attachment to another to come between her and her devotedness to her blind father. 'And why should it, dear Blanche?' was the young man's rejoinder; 'surely two of us can do more for his happiness than one. I lost my own father when a child, and it will be quite a pleasure to me to have some one I can call so. In marrying me, you will only give the old man the most dutiful of sons.'

'Ah, but I should give myself a master, who would claim and engross the greatest part of my love, for I know I should so love you, Victor! And if we had a family, the poor dear old man would come to have but the third place in my heart, after having it all to himself so long! He would find it out, blind as he is, though he would never complain; but it would make him miserable. No, no; don't talk to me of marrying as long as he lives, or tempt me with thoughts of a happiness which I have quite enough to do to forego. Let poor Blanche fulfil the task God has given her to perform; and don't lure her by your honeyed words to forget her most sacred duty!'

Poor Blanche might well say she had enough to do to maintain her dutiful resolution, between the gentle importunities of her betrothed, and the general chorus of pleadings in his favour among her sisterhood in the boat, whom Victor's good looks and good-behaviour had converted into stanch allies, and who could not conceive it possible to resist so handsome and so constant a lover. Borne down by their homely remonstrances, which agreed but too well with her own internal feelings, Blanche came at length to confess that if she had wherewithal to set up a finishing establishment of her own, where she could preside over her business without losing sight of her father, she would at once marry Victor. But the capital required for its fitting up was at least 5000 or 6000 francs, and where was such a sum to be got, or how saved out of her scanty wages? Victor, however, caught eagerly at the promise, and never lost sight of the hope it held out of attaining his darling object.

He was able to earn five francs a day, and had laid by something; and the master whom he had served for ten years, and who expressed a great regard for him, would perhaps advance part of the sum. Then, again, the good women of the boat, whose united yearly deposits amounted to upwards of 9000 francs, kindly expressed their willingness to advance out of their savings the needful for the marriage of the two lovers. But Blanche, whilst overflowing with gratitude for the generous offer, persisted in her resolution not to marry till their own joint earnings should enable her to set up a laundry.

That she worked the harder, and saved the harder to bring this about, may easily be believed. But the race is not always to the swift; and the desired event was thrown back by a new calamity, which well-nigh dashed her hopes to the ground. Her old father,

who had been subjected for fifty years of a laborious life to the damps of the river, was seized with an attack of rheumatic gout, which rendered him completely helpless, by depriving him of the use of his limbs.

Here was an end at once to all his remaining sources of amusement and occupation—it might be said, to his very animated existence; for he was reduced to an automaton, movable only at the will and by the help of others. He had now not only to be dressed and fed like a new-born infant, but to be kept from brooding over his state of anticipated death by cheerful conversation, by news from the armies, by words of consolation and reading more precious still, in all which Blanche was fortunately an adept. The old man now remained in bed till nine, when Blanche regularly left the boat, took him up, set him in his old arm-chair, gave him his breakfast, and snatching a crust of bread for herself, ran back to her work till two o'clock; then she might be seen climbing up the long steps, and running breathless with haste to cheer and comfort the old man with the meal of warm soup, so dear to a Frenchman's heart. Unwilling as she was to leave him, his very necessities kept her at work till a late hour, when, with her hard-won earnings in her hand, she would seek her infirm charge, and fall on a thousand devices to amuse and console him, till sleep stole at length on eyelids long strangers to the light of day.

One morning, on coming home as usual, Blanche found her dear invalid already up and dressed, and seated in his elbow-chair; and on inquiring to whom she was indebted for so pleasing a surprise, the old man, with a mysterious smile, said he was sworn to secrecy. But his daughter was not long in learning that it was her betrothed, who, happy thus to anticipate her wishes and cares, had prevailed on his master so to alter his own breakfast hour, as to enable him to devote the greater part of it to this pious office. Straight to her heart as this considerate kindness went, it fell short of what she experienced when, on coming home some days after, she found her dear father not only up, but in a medicated bath, administered by Victor, under the directions of a skilful doctor he had brought to visit the patient. At sight of this, Blanche's tears flowed fast and freely; and seizing on her betrothed's hands, which she held to her heart, she exclaimed: 'Never can I repay what you have done for me!' 'Nay, Blanche,' was the gentle answer, 'you have but to say one word, and the debt is overpaid.'

That word! few but would have spoken it, backed, as the modest appeal was, by the pleadings of the ally within, and the openly avowed concurrence of old Raymond in the wish so dear to both. Let none despise the struggles of the poor working-girl to withstand at once a father and a lover! to set at nought, for the first time, an authority never before disputed, and defy the power of a love so deeply founded on gratitude! In spite of them all, filial duty still

came off conqueror. Blanche summoned all the energies of a truly heroic mind, to declare that not even the happiness of belonging to the very best man she had ever heard of in her life, could induce her to sacrifice the tender ties of nature. The more her father's infirmities increased, the more dependent he would become on his daughter. What to her was a pleasure, could, she argued, to him be only a burdensome and painful task; in a word, her resolution was not to be shaken. Victor was therefore obliged to submit, even when (from a delicacy which would but incur obligations on which claims might be founded, too difficult, if not impossible, to resist) Blanche insisted on defraying, from her own resources, the expense of the medicated baths, thus putting more hopelessly far off than ever the long-deferred wedding.

She had not the heart, however, to deny Victor the privilege of putting the patient into the healing waters, which seemed daily to mitigate his pains, and lend his limbs more agility. While her father was at the worst, Blanche had been obliged altogether to forego the river, and obtain from her employer permission to do what she could in the way of her vocation at home. But when, on his amendment, she resumed her out-of-door labour, a circumstance occurred, so very honourable to the class of workwomen we are commemorating, to their mutual attachment, and honest feelings of benevolence, that to leave it untold would be doing them and the

subject great injustice.

With the motives for enhanced industry which Blanche had to spur her on, that she should be first at the opening of the boat, with her daily load of allotted labour, will be little matter of surprise; or that her good-natured companions, knowing the necessity for exertion on her part, should abstain from wasting her precious time by any of their little tricks and gossip. But one morning, when, from her father having been ill all night, she had arrived at work unusually late, and had consequently, when the hour of noon struck, left the greater part of her task (which had often detained her till night set in) unfinished, it was nevertheless accomplished, as if by magic, within the usual time, and her day's earnings, instead of being diminished, rather increased.

Next day, and the next, their amount was the same, till the grateful girl, suspecting to what she owed so unforeseen a result, and concealing herself behind the parapet of the quay, ascertained, by ocular demonstration, that, during her necessary absence, her place at the river was regularly occupied by one or other of her neighbours, who took it in turn to give up the hour of rest, that poor Blanche might be no loser by her filial duty, as not one of those worthy women would forego her share in this token of good-will to

the best and most respected of daughters.

Blanche, though affected and flattered, as may well be believed, by this novel sort of contribution, was led, by a delicacy of feeling

beyond her station, to seem ignorant of it, till the additional funds thus procured had enabled her to effect the complete cure of her father, whom she then informed of the means by which it had been purchased, and eagerly led the recruited invalid to reward, better than she could do, her generous companions.

Amid the hand-shakings and congratulations which marked this happy meeting, Victor, we may be sure, was not behind-hand; only, he managed to whisper amid the general tide of joy, 'Am I to be the only one you have not made happy to-day?' Too much agitated to be able to answer, Blanche only held the faster by her

father's arm.

Among the laundresses of the barges there is a custom of choosing annually one of their number, whom they style their queen, to preside over their festivities, and decide disputed points in the community. Mid-Lent, the season for appointing the queen of the boat, arrived, and Blanche was duly elected at the fête always given on the occasion. The boat was gaily dressed up with ship's colours, and a profusion of early spring flowers; and all were as happy as possible. In England, on the occasion of any appointment like that with which Blanche was endowed, there would be no kind of ceremony, and no ornaments would be employed; but it is doubtful whether we are any the better for thus despising a tasteful and joyous way of performing a gracious and useful public act. Be this as it may, the barge of the laundresses was, as we have said, gaily decorated, and there was to be a species of ceremonial at the installation of Blanche.

What a happy moment it was for the good daughter—how much more happy for the aged father of such a daughter. Old Raymond, firmer on his limbs than ever, led on his blushing daughter, and had the welcome office assigned him of placing on her head the rosy crown—a task which his trembling fingers could scarcely accomplish. After having called down on the head of the dutiful girl, whom he half smothered with kisses, the best blessings of heaven, he left her to receive the felicitations of her new subjects, among whom the disconsolate Victor was again heard to exclaim: 'So I am still to be the only one you won't make happy!'

The melancholy words proved too potent for the softened feelings of Blanche's honest neighbours, particularly the one whose heart it was of most consequence to touch; namely, the mistress of the laundry establishment, who, having long had thoughts of retiring, freely offered her the business whenever she should be able to

muster 5000 francs.

'Oh!' cried Victor, 'I have already a fourth of it, and I'll engage

my master will advance the rest.'

'It is not to be thought of; it would be a debt we could never repay,' cried the upright Blanche; 'we never should be able to make up so large a sum.'

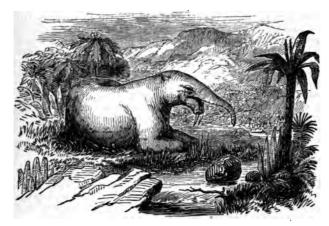
BLANCHE RAYMOND.

'Pardon, mademoiselle,' replied an elderly gentleman of venerable appearance, who had, unobserved, mingled as a spectator in the scene, 'you will now have the means of paying it with the prize of 5000 francs left for the reward of virtue in humble life by the late M. Monthyon, and awarded to you by the French Academy, at the representations of the mayor of the eighth arrondissement of Paris. The mayor, it is pleasing to know, has become acquainted with your excellent filial devotion from the laundresses of the city now assembled.'

A shout of joy burst from all around; and that which followed may be left to the imagination. It will suffice to state that Blanche, simple and modest as ever, could scarcely believe in the honour she so unexpectedly received; while her surrounding companions derived from it the lesson, that the filial piety so decidedly inculcated and rewarded by Heaven, and equally admirable in its effects in the cottage and the palace, does not always go unrewarded on earth.







Restored Figure of the Dinotherium.



EOLOGY is the science which examines and describes the crust of the earth. It is almost of yesterday; yet it has already made some most remarkable additions to the stock of human knowledge. It has, for one thing, given us a view of the earth's history during a long

period, while as yet no human beings lived upon it. The facts of this history are extremely curious and interesting. It appears that the space of time occupied by it was vast beyond all that could have been supposed; that during this time the surface of the earth underwent many changes—beds of rock being formed at the bottoms of seas, other rocks thrown up by subterranean forces, hills and valleys formed, and sea and land frequently changed the one for the other; also, and most wonderful of all, that while these operations were going on, there rose a succession of animals, beginning with those of simplest form, and advancing to others of higher character, until those nearest to the human figure appeared; these animals, however, being of different species from any which now exist. All of these facts have been ascertained by investigating the rocks which compose the earth's crust, in which are found the remains, more or less perfectly preserved, of the animals in question, as well as of a similar No. 11.

succession of plants; the order of the existence of both animals and plants being established by an order which is ascertained with regard to the age of the rocks, the oldest of which are of course placed undermost, and the newest next the surface. It is surely very interesting to reflect on the manner in which this history has been compiled; not, as histories usually are, from old family and state documents, from medals or monuments, but from particulars placed before us, as it were by nature, that we might first observe and then reflect upon and make inferences from them. And such is the character of this evidence, that many of the facts of the reign of George III. are less clearly ascertained than are some of the events which took place many millions of ages before the existence of the human race. In comparing the revelations of science with the Mosaic account of the creation, we must remember that the former is as yet but an imperfect record, and that the observed facts and deductions therefrom are entirely different subjects, not to be confounded, or pressed into the service of the advocates of rival 'reconciliations.

The remains of the early animals and plants—called fossils as being dug (Latin, fossus, dug) out of the earth—are found in various conditions; sometimes what was once a coral, for instance, is still a coral, the original hard substance being entirely preserved; sometimes the original substance has been withdrawn particle by particle, and replaced by silex or some other mineral substance, but without the slightest change of form; on other occasions there is merely an impression of the original plant or animal, but this is in general as useful to the geologist as if the primitive substance remained. 'In a word, there is no limit to the number and variety of these remains of animal and vegetable existence. At one time we see before us, extracted from a solid mass of rock, a model of the softest, most delicate, and least easily preserved parts of animal structure; at another time, the actual bones, teeth, and scales, scarcely altered from their condition in the living animal. The very skin, the eye, the footprints of the creature in the mud, and the food that it was digesting at the time of its death, together with those portions that had been separated by the digestive organs as containing no further nutriment, are all as clearly exhibited as if death had within a few hours performed its commission, and all had been instantly prepared for our investigation. We find the remains of fish so perfect, that not one bone, not one scale, is out of place or wanting, and others in the same bed presenting only the outline of a skeleton, or various disjointed fragments. We have insects, the delicate nervures of whose wings are permanently impressed upon the stone in which they are imbedded; and we see, occasionally, shells not merely retaining their shape, but perpetuating their very colours—the most fleeting, one would think, of all characteristics—and offering evidence of the brilliancy and beauty of creation at a time when man was not yet an inhabitant of the earth, and there seemed no one to appreciate

beauties which we are, perhaps, too apt to think were called into existence only for our admiration.'

ROCK SYSTEMS.

Considering the Geological Record as a history of the world previous to the existence of Man, our first task is to divide it into ages or eras, so that we may have, as it were, a chronology for it; for of course we can here have no reckoning by years, as we have in ordinary history. This can be conveniently done by a consideration of the various rock systems which constitute the crust of the earth; each set or system being chiefly composed of some distinguishing material, as chalk, red sandstone, coal, slate, &c. and at the same time containing different remains of plants and animals. systems, therefore, form a chronological table, to which we refer the various plants and animals which we wish to describe, as well as any other circumstances which may be thought worthy of notice. They are named as follows:—I. METAMORPHIC SYSTEM. 2. LAU-RENTIAN SYSTEM. 3. CAMBRIAN SYSTEM. 4. SILURIAN SYSTEM. 5. OLD RED SANDSTONE SYSTEM (Devonian). 6. CARBONIFEROUS System. 7. Permian System. 8. Triassic System. 9. Oolitic. SYSTEM (Jurassic). 10. CHALK SYSTEM (Cretaceous). 11. TER-TIARY SYSTEM. 12. SUPERFICIAL DEPOSITS. Each of these systems, consisting of many beds of rock, may be fairly said to represent a space of time; for each must have required a certain time to be formed, and, from palpable appearances, that time was in all instances of long duration. The whole of these eras being put together, would of course make up one enormous space; and yet it is but a part, though a large one, of the earth's entire history. Before the laying down of the Metamorphic or first stratified rocks, there is no saying how long the globe had existed. There has also been a space of time since the termination of the rock systems; and during this time all the present tribes of plants and animals have come into existence, and have gone through various stages of progress.

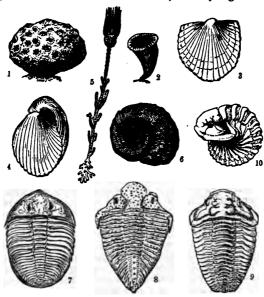
The first great fact respecting the earth in what we may call the geological ages is, that, as far as we can see, it was, in its main features, such a world as we find it to be in our own time. It consisted of sea and land; there were an atmosphere and light; and animals lived and died, many of them preying upon each other, as they now do. Rains, winds, and rivers operated then, as now, in wearing down the land, and forming out of the materials new strata in the bottom of the sea. The operations by which mountain-ranges were formed, lavas distributed, and disturbances effected in the stratified rocks, were in like manner identical in character with the effects of volcanoes in the present day. There were indeed some differences, though not such as to affect the general case. For

example, the seas in the earliest ages were much more extensive than they are now: this is inferred from the vast extent of surface at present occupied by these rocks, which evidently required equally extensive seas for their deposition. It is also evident, from the character of these ancient rocks, that a much higher temperature existed at the time of their formation than what is now experienced upon earth; and it further appears at a later time, that a heat now confined to the tropics was then diffused into medium and even polar latitudes. Still, as has been said, the world was in the main such as it now is. And of this, the memorials are in some instances extremely curious. We find, for example, extensive surfaces of strata in quarries marked by the same little wavy ridges which may at this day be seen on any sandy beach after the ebb of tide. These were formed exactly as such wavy ridges are now formed. What is now a platform of hard rock was originally a sandy beach, along which the sea rose and fell under the influence of tides. A peculiar gentle agitation of the water when it was shallow, produced the ripple-mark there, as it still produces it on the shores of our seas. The surface so marked being hardened before the next tide, a quantity of new sand brought over it did not obliterate the marks. but merely covered them, and formed a new layer above. Now this new layer might of course be expected to be marked underneath by the wavy ridges of the subjacent layer; and such is actually the case. Quarrymen, digging up sandstone formed unnumbered ages ago, find upper layers invariably presenting perfect casts of the rippled surface on which they rest. More than this—one may often remark, as he walks after a shower along a sandy beach, that the drops of rain have pitted it all over with little holes, each having the sand raised like the lips of a cup around it. Now these holes have likewise been observed upon ripple-marked rock-surfaces in quarries, being of course the memorials of showers which fell immediately after the sand now forming the rock was laid down in a soft state. Nor is this all—for in some of these rock-surfaces, the hollows being found to have their lips raised higher on one side than the other, as happens when rain is driven by wind in a particular direction, we have, it may be said, memorials of the wind which blew, and of the point of the compass from which it blew, at the time when the rain fell upon these tablets. We have here, it must be admitted, the most curious as well as convincing proofs that the meteorology of the present era is analogous to the meteorology of the inconceivably remote times under our notice, while as yet there were no human eyes to note times and seasons.

EARLY GEOLOGICAL AGES.

Reverting to our chronological table. It is to be observed that, in the earliest series of stratified rocks lying above the granites and other rocks of that nature, the origin of which is generally attributed

to fire, and hence called the *Igneous Rocks*, and which are altered or *metamorphosed* by contact, no life remains have as yet been found. This absence is only negative testimony; but as investigation progresses, they may be found to be also fossiliferous—the fossils being of a low grade of existence. The system immediately overlying these metamorphic rocks is called the *Laurentian*, from being extensively developed in the Laurentide Mountains, in Canada, and was long supposed to be of the same nature. Of late years, however, both in Canada and in Ireland, a lowly organised fossil,



1. Astrea; 2. Turbinolia fungites; 3. Terebratula risca; 4. Leptæna lata; 5. Actinocrinites; 6. Euomphalus rugosus; 7. Asaphus de Buchii; 8. Asaphus tuberculatus; 9. Calymene Blumenbachii; 10. Side view of Calymene while rolled up.

the Eozoon canadense, or 'dawn of life animalcule,' has been discovered. It is the earliest trace of life we find, and seems to have grown in the Laurentian seas like a spreading bunch of coral. The Cambrian (formerly called the Grauwacke) yields a few sea-weeds, zoophytes, burrowing worms, and shrimp-like animals (crustacea), but all the life is of a very lowly type. The Silurian system—so

^{*} Contrary views are beginning to be entertained by some chemical geologists, but their theory does not affect our palæontological statements.

called because it is found extensively developed in certain counties in Wales, formerly the Siluria of the ancient Britons—owes its establishment and chief subsequent investigation to Sir R. I. Murchison, who, in his Siluria, has described and figured the various fossils peculiar to it. These are marine creatures, chiefly numerous species of zoophytes, or animals allied to the 'sea-pen' of our fishermen, corals, crinoids—a star-fish on a stem—various species of shell-fish, worms, crustacea, &c. There are also various marine plants, and seeds, and drifted fragments of other plants allied to our clubmosses are not unfrequent—pointing to rivers carrying down debris into a shallow estuary, though most of the animals may have lived in the deep sea. Some of the forms of animal life during the Silurian age are represented on the preceding page. These are-figs. I and 2, corals; 3 and 4, bivalved molluscs (like the oyster); 5, a crinoid; 6, a single-valved mollusc (like a whelk); 7, 8, and 9, trilobites; and 10, the same as 9, but rolled up at rest. As some interest must attach to these early forms of life, we give a more particular account of some of them.

THE TRILOBITES.

The trilobite—so called from its three-lobed appearance—is a type of being extremely abundant in the seas of the Silurian and a few subsequent ages, yet long extinct in all its various species, and hardly represented by any existing animal, the only one approaching to it being the serolis. 'The trilobite was a true (that is, perfectly developed) crustacean, covered with shelly plates, terminating variously behind in a flexible extremity, and furnished with a headpiece composed of larger plates, and fitted with eyes of a very complicated structure. It is supposed by some to have made its way through the water by means of soft paddles, which have not been preserved; and by others merely to have sculled itself forward by the aid of its flexible extremity. Of its various organs, the most interesting is the eye, of which several specimens have been obtained in a very perfect state. This organ, according to fossil anatomists, is formed of 400 spherical lenses in separate compartments, on the surface of a cornea projecting conically upwards, so that the animal, in its usual place at the bottom of waters, could see everything around. As there are two eyes, one of the sides of each would have been useless, as it could only look across to meet the vision of the other; but on the inner side there are no lenses, that nothing may, in accordance with a principle observable throughout nature, be thrown away. It is found that in the Serolis, the surviving kindred animal, the eyes are constructed on exactly the same principle, except that they are not so high—a necessary difference, as the back of the serolis is lower, and presents less obstruction to the creature's vision.'* Philosophers have remarked with delighted surprise the

evidence afforded by the eye of the trilobite, that the air and light were generally the same in the early ages of the earth as now, and that the sea must have been as pure. If the water had been constantly turbid or chaotic, a creature destined to live at the bottom of the sea would have had no use for such delicate visual organs. 'With regard to the atmosphere,' says Dr Buckland, 'we infer that, had it differed materially from its actual condition, it might have so far affected the rays of light, that a corresponding difference from the eyes of existing crustaceans would have been found in the organs

on which the impressions of such rays were then received. Regarding light itself also, we learn from the resemblance of these most ancient organisations to existing eyes, that the mutual relations of light to the eye, and of the eye to light, were the same at the time when crustaceans, endowed with the faculty of vision, were placed at the bottom of the primeval seas, as at the present moment.'

CRINOIDEA.

The crinoïdea, which reached their zenith in abundance of individuals and species during the subsequent age, and afterwards, like the trilobites, became extinct, were animals of a humble class. consisting generally of a stalk fixed at the lower end to the sea-bottom, and bearing at the other a cuplike body, with a mouth in the centre, and numerous tentacula or arms branching in all directions for the seizure of prey. The stalk and tentacula were composed of innumerable small plates of calcareous or bony substance, connected by a muscular integument, so as to be capable of bending in all directions, and likewise, as some suppose, covered with a gelatinous coating. The bones of the stalk, perforated for an internal canal, are of different form in different species, some being round, and some angular, and at intervals there are some of greater thickness, all being beautifully marked and nicely adjusted to each other. In the accompanying drawing of a crinoidean (the Encrinites moniliformis, or necklace-shaped encrinite), the stalk is abridged to much less than the usual length, for the

sake of convenience, and the arms are represented as closed. As many as 26,000 bones have been reckoned to go to the composition of a single animal of this kind; and some of the family are supposed to have had many more. The bottom of a sea, filled with a number of such animals, yielding to its every current and impulse, and each

Encrinites moniliformis

spreading about its far-reaching arms for prey, must have been a striking sight—a vast field of tulips, waving in the wind, being the only idea we can form at all approaching to it. Fragments and single bones of the crinoïdea are found in vast quantities in early rocks, forming in some places the principal portion of masses a hundred and twenty feet thick; and marble mantel-pieces, in which these fragments appear in all attitudes and forms, are common in this country. The single wheel-like bones of the stalk are also gathered in abundance on some sea-beaches, and strung up as beads. In the northern parts of England they are called St Cuthbert's beads, and connected with a popular superstition.

'On a rock by Lindisfarn
Saint Cuthbert sits, and toils to frame
The sea-born beads that bear his name.'—Marmion.

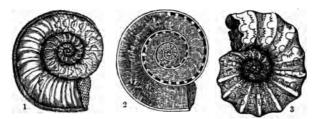
THE CEPHALOPODS.

In these early ages, as in the present day, the mollusca (shellfish) formed a conspicuous portion of animated nature. The species. however, have been repeatedly changed in the course of time. The most abundant order in the early ages was that of Brachiopoda, a set of creatures living in bivalve shells, and possessing two organs, somewhat like arms, with which to catch prey. They are supposed to have been 'the scavengers of ancient seas, living upon such fragments of animal matter as found their way to the great depths.' But the most remarkable molluscs of those ages were the Cephalopoda, an order occupying univalve shells, and so high in organisation as usually to possess an internal bony skeleton. Of this order there are still representatives in our seas; but in ancient times, they seem to have been far more abundant both in species and in individuals, acting then as the butchers of the marine animal world, to restrain within due bounds the redundant life of which nature is ever so prodigal. The most remarkable species of the early ages were those termed nautili and ammonites. The existing nautilus has enabled geologists to arrive at a very clear understanding of the economy of the cephalopoda of ancient times, of which the shells are now almost the sole remains.

The cephalopoda possessed a body resembling a closed bag, containing a heart, stomach, and other organs, and furnished with a head and prominent eyes, as also a number of long arms or tentacula, which at once served for the locomotion of the animal, and for the seizure of its prey. The arms were each provided with a double row of suckers, which enabled it to take a firm hold of smaller animals, and convey them to its mouth, which was armed with a pair of strong horny mandibles or nippers, not unlike the beak of a parrot. The cephalopod lodged in a shell, straight

or curved, consisting of a series of air-chambers, terminating in an outer one which was more particularly the residence of the animal.

It formed these chambers one after another in the course of its life, according as they were needed for the purpose to which nature had destined them. This purpose was to enable the animal to float in the The reader may be reminded that the principle on which water. floating in water depends is, that more water must be displaced than would weigh the same as the article or object displacing it. A lifeboat is made incapable of sinking, by having empty copper boxes distributed within its structure, these, with the wood, displacing more water than is equal to the weight of the whole vessel. Now, the airchambers in the ammonite or nautilus are like the copper boxes of the life-boat; they displace a certain quantity of water. But the creature required to be able to rise and sink in the water at pleasure; therefore something more was needed. The end is supposed to have been served in two ways. Down through the centre or side of the series of air-chambers, but not communicating with them, there was an elastic pipe, called the siphuncle (represented in No. 2), the upper extremity of which was connected with the cavity of the animal's heart. This cavity was in general filled with a dense fluid, which partly filled the siphuncle, the remainder being occupied by air.



 Ammonites obtusus;
 Section of Ammonites obtusus, shewing the interior chambers and siphuncle;
 Ammonites nodosus.

It may easily be seen how this arrangement acted. Whenever the animal, for any reason, whether to escape danger or in search of prey, wished to sink, it contracted itself into the outer chamber, thus pressing the fluid of its heart into the siphuncle, and reducing the space occupied by the air, at the same time that the gravity of its body was increased by its displacing less water. Accordingly, being then heavier than the surrounding medium, it sunk. When, again, it wished to rise, it had only to dilate its body and arms, and allow the air in the siphuncle to expand to its usual space, when, becoming lighter than the surrounding element, it necessarily ascended. Some species of this order of molluscs were also provided with a bag containing an inky secretion, which they could express upon occasion, so as to

No. 11.

muddle the surrounding water, and thus conceal themselves from enemies. In one case, the fossil ink-bag has been found in such a state of preservation, that a portion of the mineralised fluid, being pounded down and properly prepared, actually served an artist as a pigment with which to furnish a drawing of the animal itself. It is certainly curious to reflect on all these particulars being ascertained in modern times respecting species which have been extinct for numberless ages. The ammonites and nautili of the early ages were of all sizes, from one very minute, to two or three feet in the diameter of the shell. The ammonite (Nos. 1 and 3) has been so called from its resemblance to the coiled horn on the head of the ancient statues of Jupiter Ammon. One had been obtained by the poet Pope, at a time when their history was totally unknown, and stuck up as a curiosity over the keystone of one of the arches giving access to his grotto at Twickenham; while the other entrance was in like manner ornamented by the cast of the same fossil. Surely poet never dreamed of anything more marvellous or interesting than the actual history of this primeval cephalopod. But we have not yet told all the wonders of the ammonite. As creatures of this kind required to go down to great depths in the ocean, the plates of the air-chamber were of course liable to be burst in by the pressure of the water, as happens to common bottles when they are lowered deep into the sea. All The shell of the cephalopoda was therethis had been foreseen. fore strengthened by a curious kind of internal archwork, so as to be able to resist the weight of the incumbent fluid. 'This archwork so completely meets all human ideas of contrivance for the purpose which it was destined to serve, as to form one of the most striking examples of that adaptation of means to ends which prevails throughout the works of nature, and which is so well fitted to impress the conviction of a great designing First Cause.'

'In the open seas in which the earliest strata were being deposited, we may picture to ourselves these large cephalopodous molluscs reigning paramount, the tyrants of creation; enabled, by their rapidity of movement, to chase their prey at the surface; by their curious hydraulic contrivance, to pursue it to the depths of the ocean; and by their numerous arms and great strength, to conquer and bring it within the grasp of their powerful jaws. The recent animals of this class are so fierce, that, even in our own seas, where they occupy a place comparatively unimportant, they rank amongst the most destructive species, in proportion to their dimensions; for "if once they touch their prey it is enough: neither swiftness nor strength can avail; the shell of the lobster and crab is a vain protection; and even animals many times their size have been soon disabled in their powerful and pertinacious grasp." These animals ceased about the commencement of the Tertiary age, but were then replaced by

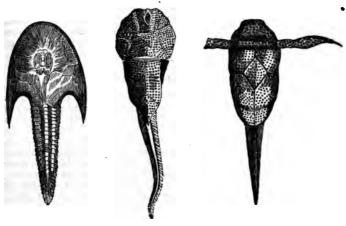
Trachelipods, which served the same purpose of keeping down the teeming minor population of the sea. The Trachelipods were furnished with an armed membrane, by means of which they could bore through the shells of bivalves, and suck out the body of the animal within; and numerous fossil shells, so bored, are found in the Tertiary strata. It would appear that there was no time when this principle did not exist; there have ever been some tribes whose obviously designed function it was to destroy for food large quantities of the smaller animals.

EARLY FISHES.

The next age (Old Red Sandstone) gives us notice of tremendous volcanic disturbances which broke up many rocks, and perhaps had fatal effects upon many of the previously existing species, which then disappear, and are no more seen. In the course, however, of this age, fishes, which had begun to appear in the preceding period, become abundant. The fish of these early ages, and of the subsequent periods down to the Chalk Era, were not of the character which is now predominant. They have been divided into two orders. to which names have been given, bearing reference to their external covering, this being always a guide to the general character of fishes. One extensive order, *Placoidians*, are so called from the Greek, *plax*, a broad plate; being covered with plates, often of considerable dimensions, but sometimes reduced to small points, like the shagreen on the skin of the shark, and the prickly tubercles of the ray. sharks, rays, and other cartilaginous fishes of the present seas, are representatives of this order. The other order are called Ganoidians, from the Greek, ganos, splendour, because of the brilliancy of the regularly arranged angular scales, composed of bone within and enamel without, by which the animals were covered. Of this order, once so extensive, we have now no representatives except the sturgeon and the bony pike of the North American lakes.

Some of the simpler Ganoids are allied in form to the crustaceans, and may be considered as an advance upon that order. The plates covering their bodies are composed of bone within and enamel on the outside; and the mouths of several of the species have been ascertained to open vertically, in which respect they differ from ordinary fishes (in which the mouth opens horizontally), but resemble the crab and lobster. One species, the *Cephalaspis*, so called from its buckler-shaped head, bears a striking resemblance to the asaphus, a crustacean of the Silurian age. The head was of great size, composed of strong plates, which came to a sharp edge in the form of a crescent, and it is thought that the horns of the crescent were probably used as weapons of defence. Next to this fish comes the *Coccosteus*, which Mr Hugh Miller describes as 'a Cephalaspis with a scale-covered tail attached, and the horns of the crescent-shaped

head cut off.' The plates of the Coccosteus have berry-like tubercles or prominences; hence the name given to the animal. It has the vertical arrangement of the mouth; and its teeth, instead of being



Cephalaspis.

Coccosteus.

Pterichthys.

detached organs set in the jaw, are cut out of the solid bone in the manner of the teeth of a saw; this likewise being a peculiarity of the crustacea.

The *Pterichthys*, of which seven species are known, resembles the Coccosteus, but with the remarkable addition of two wing-like appendages (hence the name of the animal), which were probably fins or paddles for locomotion, and are also supposed, from their curved and sharp terminations, to have been used occasionally as weapons of defence. The *Holoptychius* was between two and three feet long, of flounder-like shape, and had its head and body covered with large bony scales, curiously furrowed on the surface. In the Osteolepis and Glyptolepis, other Ganoid fishes, we find a considerable advance of form, the general figure being like that of modern fishes, with the fins well developed.

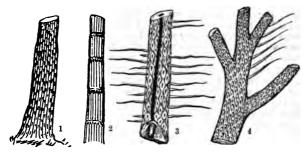
One of the families of the Ganoidians, the Sauroides, are so called, because in structure they make an approach to the next higher class of animals, the Reptiles. The Megalichthys is a sauroid fish, of which remains were first found in Burdiehouse limestone quarry near Edinburgh. It must have been a huge creature; for some of its scales are five inches in diameter, and one of its teeth measures four inches in length, with a breadth at the base of nearly two inches.

One curious peculiarity has been remarked in the tails of both Placoids and Ganoids. In that organ the vertebral column is continued to the extremity, and the tail may be said to be a fin extending from it downwards, as seen in the existing shark and dog-fish. This is called the heterocercal, or one-sided tail. The Placoid and Ganoid fishes alone reigned down to the Chalk age. They then, in a great measure, gave way to the two superior orders which now exist, called by M. Agassiz the Ctenoid and Cycloid orders, from the form of their respective scales, these being in the one case jagged at the outer margin like the teeth of a comb, as in the perch, while in the other they are entire and circular, as in the herring. In these orders, to which the majority of modern fishes belong, the tail is not heterocercal, but either extends in one entire lobe, like that of the cod, or in two equal lobes, called homocercal, as that of the salmon.

COAL.

The Carboniferous age is not remarkable on account of its animals, which are mainly the same in general character as in the preceding ages; but it was productive of a wonder peculiar to itself, namely, an enormously abundant land vegetation, the ruins or rubbish of which, carried into seas, and there sunk to the bottom, and afterwards covered over by sand and mud beds, became the substance which we now recognise as coal. This was a natural transaction of vast consequence to us, seeing how much utility we find in coal, both for warming our dwellings and for various manufactures, as well as the production of steam, by which so great a mechanical power is generated. It may naturally excite surprise that the vegetable remains should have so completely changed their apparent character, and become black. But this can be explained by chemistry; and part of the marvel becomes clear to the simplest understanding when we recall the familiar fact, that damp hay, thrown closely into a heap, gives out heat and becomes of a dark colour. When a vegetable mass is excluded from the air, and subjected to great pressure, a bituminous fermentation is produced, and the result is the mineral coal, which is of various characters, according as the mass has been originally intermingled with sand, clay, or other earthy impurities. On account of the change effected by mineralisation, it is difficult to detect in coal the traces of a vegetable structure; but these can be made clear in all except the highly bituminous caking coal, by cutting or polishing it down into thin transparent slices, when the microscope shews the fibres and cells very plainly. From distinct isolated specimens found in the sandstones amidst the coal-beds, we discover the nature of the plants of this era. They are almost all of a simple cellular structure, and such as exist with us in small forms (horse-tails, club-mosses, and ferns), but advanced to an enormous magnitude. The species are all long since extinct.

Amongst them were the Sigillaria, so called from the graven appearance of its stem: Calamites, from the reed-like jointings of its stalk; Stigmaria, from stigmata, or punctures; Lepidodendron, from the



1. Sigillaria pachyderma; 2. Calamites cannæformis; 3. Stigmaria ficoides, 4. Lepidodendron Sternbergii.

scaly appearance of its bark. The vegetation generally is such as now grows in clusters of tropical islands; but it must have been the result of a high temperature obtained otherwise than that of the tropical regions now is, for the coal strata are found in the temperate and even the polar regions. 'The conclusion, therefore, to which most geologists have arrived is, that the earth, originally an incandescent or highly heated mass, was gradually cooled down-hot enough to render the early Metamorphic rocks crystalline; cool enough during Cambrian and Silurian eras to permit of marine corals, shell-fish, and crustacea; cooler still, during the life of the plated fishes of the Old Red Sandstone; and only sufficiently genial, throughout the Carboniferous period, to foster a growth of terrestrial vegetation all over its surface, to which the existing jungles of the tropics are mere barrenness in comparison. This high and uniform temperature, combined (as suggested by Brogniart) with a greater proportion of carbonic acid gas in the atmosphere, would not only sustain a gigantic and prolific vegetation, but would also create denser vapours, showers, and rains; and these again gigantic rivers, periodical inundations, and deltas. Thus all the conditions for extensive deposits of wood in estuaries would arise from this high temperature; and every circumstance connected with the coalmeasures points to such conditions."

SAURIAN ANIMALS.

In the New Red Sandstone† age, the plants and animals of the preceding period are continued with the addition of some superior

Page's Geology—Chambers's Educational Course.
 † t.e., Permian and Triassic.

forms: but the vegetation is no longer of such quantity as to form coal-beds, and the amount of animal remains is also much diminished. Life takes, however, a new start in the Oolitic age, and its forms continue there to make still nearer approaches to those of the present time. Here, also, still higher forms are added—insects are found for the first time; likewise reptiles; but these are at first of extraordinary form and magnitude. In the arrangement of the Animal Kingdom, reptiles are placed next above fishes; that is to say, they are considered as having the next higher or more complicated structure. Now, the new animals of this period which we are about to speak of, are, as it were, between fishes and a certain order of the reptiles; namely, the Sauria or Lizards. They are huge animals, and evidently must have been very destructive to the smaller creatures within their reach. The Ichthyosaurus, of which there are fully ten species, slightly differing from each other (the skeleton of one being here represented), had the body of a fish, with



a long tail having a small fin below; the head of a crocodile exhibiting long jaws armed with strong teeth, and a pair of eyes as large as a good-sized cannon-ball; the animal had also paddles, externally like those of a tortoise, but of a fin-like structure, for propelling itself through the water, which formed its proper element. The Plesio-saurus was a nearer approach to the reptile form. The tail is shortened, and upon a similar body is fitted a long neck with a small head, the latter parts being an approach to the serpent form. Being, although of marine habits, essentially reptiles, these animals breathed the atmosphere; yet, for the same reason, we know that their respiration was imperfect, and that they might be for the most part under water, and only come occasionally to the surface to breathe. It is supposed that they lived in the shallow waters near shores, preying upon the smaller fish and reptiles. Some curious particulars respecting these creatures have been obtained in an extraordinary way; namely, by the discovery of fragments and half-digested remains of their food, found in the situation once occupied by the stomach and bowels of some specimens; the animal in these instances having died before its last meal was digested. Nor is this all; for the pellets ejected from the intestines of the ichthyosaurus

(coprolites) have been found in vast quantities, and in these are fish scales and fragments of the bones of reptiles. From the way in which the former remains occur, and from the peculiar form of the pellets (being spirally twisted), it is inferred that the large body of the ichthyosaur was almost entirely occupied by the stomach, leaving only a little room for 'an elongated intestinal canal, consisting of a flattened tube reduced to the smallest possible dimensions by being wound round in a spiral, like a cork-screw.'• It is believed that these creatures were covered with a soft skin, like that of the whale tribe. We possess the remains of a plesiosaur of seventeen, and of an ichthyosaur of thirty feet in length. Animals so huge and so voracious, must have been the tyrants of the seas of their time; but the ichthyosaur seems to have been the supreme monster of the age, for fragments of plesiosaur bones are found in its stomach, shewing that that animal often fell a prey to it.

After these animals come a tribe of crocodile-lizards (Dinosauria). huge creatures uniting these two characters, and probably as destructive upon land as the former were in the waters. One in particular, to which the name of Megalosaurus has been given, was of gigantic size—probably not less than thirty feet long—its large body being mounted upon much taller legs than lizards generally have. Within a straight and narrow snout was a range of teeth peculiarly calculated to tear flesh; and the whole aspect of the creature must have been extremely formidable. We have now seen the lizard character united to both the fish and the crocodile. In the Pterodactyle. it was further shewn in union with features of a different kind. This is a small animal, chiefly of the lizard form, but furnished with a membrane framed upon the fore extremity, like the wing of a bat, by which the creature must have been able to pursue its prey through the air. 'In external form,' says Dr Buckland, 'these creatures somewhat resembled our modern bats and vampires: most of them had the nose elongated, like the snout of a crocodile, and armed with conical teeth. Their eyes were of enormous size, apparently enabling them to fly by night. From their wings projected fingers, terminated by long hooks, like the curved claw on the thumb of the bat. These must have formed a powerful paw, wherewith the animal was enabled to creep or climb, or suspend itself from trees. It is probable, also, that the pterodactyle had the power of swimming, which is so common in reptiles. "Thus, like Milton's fiend, qualified for all services and all elements, the creature was a fit companion for the kindred reptiles that swarmed in the seas, or crawled on the shores of a turbulent planet.

The fiend. O'er bog, or steep, through strait, rough, dense, or rare, With head, hands, wings, or feet, pursues his way, And swims, or sinks, or wades, or creeps, or flies.—Paradise Lost." +

Ansted's Geology.

In the Oolitic System first appear the undoubted remains of a true bird—the Archaopteryx macrurus (Owen), or 'long-tailed featherwing,' recently discovered in the lithographic limestones of Solenhofen, in Germany. It was about the size of a rook, and differed from all known birds in having two free claws belonging to the wing.

FOOTSTEPS ON ROCK SURFACES.

The reader has already been told that slabs of sandstone often bear ripple-marks, or wavy ridgings, indicating their having been originally surfaces of sand along which tides rose and fell. These tablets bear in some instances what we may call additional inscriptions, the work of certain animals. On the surface of slabs both of the calcareous grit and Stonesfield slate, near Oxford, and on sandstones of the Wealden formation in Sussex and Dorsetshire, Dr Buckland has found 'perfectly preserved and petrified castings of marine worms, at the upper extremity of holes bored by them in the sand, while it was yet soft at the bottom of the water, and, within the sandstones, traces of tubular holes in which the worms resided.' Man did not exist to impress with his foot those early beaches; but there were other animals to walk over them, and, as might have been anticipated, footprints of some of these have been found on the surfaces of various rocks of the formations already referred to. In the lower district of Dumfriesshire, there are extensive beds of the new red sandstone, which are worked in various parts of the country. At the quarry of Corncockle Muir, near Lochmaben, the surfaces of successive layers or slabs of this rock were observed many years ago to bear marks as of the feet of animals; but the phenomenon was disregarded till, in 1827. Dr Duncan, minister of Ruthwell, presented an accurate account of it to the Royal Society of Edinburgh. It appears that the beds in that quarry dip or incline at an angle of thirty-eight degrees, a slope greater than that of any ordinary hill. Slab after slab has been taken away to a depth of forty-five feet; but one after another (though not in all instances) has been found marked by the tracks of animals, up and down the slope. These impressions are generally about half an inch in depth, and the matter of the rock is raised round them, exactly as clay or mud is seen raised round a footprint of yesterday. The observer clearly traces the double track made by an animal which has two legs at each side, the hind foot, of course, approaching near to the fore one. The prints are about two inches in width, and present the appearance of five claws, of which the three in front are the most distinct. It is worthy of remark, that the fore feet give the deepest impressions, as if the animal had been heaviest in that quarter, and this in the ascending as well as the descending tracks. In one case, where the dip of the exposed surface is at an

angle of forty degrees, there are clear evidences of the footmarks having been made upon a surface very steep at the time of the impression, for the animal appears to have put forward its fore feet cautiously, and inserted them deeply and firmly; while the marks of the hind feet are comparatively slight, and indeed scarcely perceptible. Generally, however, there is a small rise of the substance of the rock either in front of or behind the prints, according as the tracks are descending or ascending, shewing that the surface sloped more or less in its present direction at the time when the impressions were made. Dr Buckland, conceiving it likely that the marks had been impressed by animals allied to the land-tortoises of the present day, set such an animal to walk up and down slopes of soft sand, clay, and unbaked pie-crust, and found the footsteps to be remarkably like those of the Corncockle quarry. He makes the following just remark upon the experiment in his Bridgewater Treatise: 'This evidence of footsteps is one which all mankind appeal to in every condition of society. The thief is identified by the impression which his shoe has left near the scene of his depredations. Captain Parry found the tracks of human feet upon the banks of the stream in Possession Bay, which appeared so fresh, that he at first imagined them to have been recently made by some natives: on examination, they were distinctly ascertained to be the marks of the shoes of some of his own crew, eleven months before. The frozen condition of the soil had prevented their obliteration. The American savage not only identifies the elk and bison by the impression of their hoofs, but ascertains also the time that has elapsed since each animal had passed. From the camel's track upon the sand, the Arab can determine whether it was heavily or lightly laden, or whether it was lame.' It is remarkable that none of the series of footmarks at Corncockle are across the slab; all are nearly straight up and down. This is exactly what would happen upon a sloping sea bottom or beach, which the animals had occasion to traverse in one direction only, backwards or forwards. These 'ichnites' or fossil footprints are described in Sir W. Jardine's Ichnology of Annandale, and those of America by Hitchcock and Lea.

Since these curious facts were made public, footmarks of animals have been traced upon rock-surfaces in various parts of the world. Mr Poulett Scrope found rippled surfaces in Devonshire and Lancashire, marked with numerous tracks of small animals (apparently crustaceous), which had traversed the sand when it was in a soft state. These tracks are in double lines, parallel to each other, shewing two indentations, as if formed by small claws, and sometimes traces of a third claw. There is often, also, a third line of tracks between the other two, as if produced by the tail or stomach of the animal touching the ground; and where the animal passed over the ridges of the ripple-markings on the sand, they are flattened and brushed down. More recently, some fossil footsteps of a much more striking character have been found in the quarries at Hessberg, near

Hildburghausen, in Saxony, upon the upper surfaces of beds of gray quartzose sandstone; in alternation with which, it may be remarked, there are beds of red sandstone nearly about the same age with those of Dumfriesshire. The vestiges of four different animals have been made out. One has been apparently a small web-footed animal, probably allied to the crocodile. The footstep of another bears a striking though grotesque resemblance to the human hand, from which the supposed animal itself has been named the Cheirotherium. A specimen on a slab which has been placed in the British Museum, is fully the size of a human hand, the only remarkable difference being in the comparative thickness of the fingers, and the absence of the appearance of joints. The fore feet are less by one-half than the hind feet, before which they are always advanced about an inch and a half, an interval of fourteen inches being between each pair. Professor Kaup conjectures that this animal has belonged to the marsupial family, the oldest, it is supposed, of the families of land

quadrupeds.

In the New Red Sandstone in the valley of Connecticut, there have been laid bare in quarries, along a considerable tract of country, surfaces presenting footprints of many various species of birds, apparently belonging to the order Gralla, or Waders. discovery is remarkable on more accounts than one, as it gives evidence, for the first time, of the existence of birds at that early period of the earth's history. 'The footsteps appear in regular succession, on the continuous track of an animal in the act of walking or running, with the right and left foot always in their relative places. The distance of the intervals between each footstep on the same track is occasionally varied, but to no greater amount than may be explained by the bird having altered its pace. Many tracks of different individuals and different species are often found crossing each other, and crowded, like impressions of feet upon the shores of a muddy stream, where ducks and geese resort.' The smallest of these prints indicates an animal with a foot about an inch long, and a step of from three to five inches; but they vary upwards in size, till they reach something which may well be regarded as gigantic. Let it be remembered that the African ostrich, which weighs a hundred pounds, and is nine feet high, has a foot of ten inches, and a leg four feet long. It is the most stupendous of existing birds. But the largest of the footprints in the Connecticut sandstone being fifteen inches in length, exclusive of the largest claw, which measures two inches, and the steps being from four to six feet apart, denote a considerably larger bird, the legs of which, probably, were not less than seven feet in height. This has well been styled the Ornithichnites giganteus. Another, ranking next to the above in size, exhibits 'three toes of a more slender character, measuring from fifteen to sixteen inches long, exclusive of a remarkable appendage extending backwards from the heel eight or nine

inches, and apparently intended, like a snow-shoe, to sustain the weight of a heavy animal walking on a soft bottom. The impressions of his appendage resemble those of wiry feathers, or coarse bristles, which seem to have sunk into the mud and sand nearly an inch deep; the toes had sunk much deeper, and round their impressions the mud was raised into a ridge several inches high, like that round the track of an elephant in clay. The length of the step of this bild appears to have been sometimes six feet.'*

ROCK SALT.

Among the strata of the Triassic System there occur in many places beds of rock-salt; that is, salt in a hard compact crystalline Such beds are found in Cheshire and Worcestershire in England, in Spain, Poland, Austria, and other countries; and are sometimes not less than 120 feet in thickness. Mines are established in these strata, as in coal, and the saline material, when boiled down and properly purified, is sold for ordinary use. Springs, also, issuing from such deposits, are generally so strongly impregnated with salt, that it can be profitably obtained from the water by evaporation. There are few sights more impressive than that of a salt-mine, where the stratum has been of considerable thickness. You find yourself in a lofty hall, of vast extent, supported upon massive columns of the original material, the walls sending back thousands of sparkling reflections from the lights borne by your attendants. consideration is a curious one, that this great bed of salt, now far below the surface of the earth, was once a solution filling a profound sea, the highest animals which then existed being reptiles. manner in which rock-salt was formed is thought to have been as follows: An estuary, or arm of the sea, being by some convulsion of nature cut off from the main ocean—and such events still occur and being then left to be dried up, the salt contained in the water was unavoidably deposited as a stratum at the bottom, just as a layer of salt is found at the bottom of a pan in a salt-factory after the water has been boiled off. Afterwards the spot becoming again the bed of a sea, strata of sandstone and other rocks were laid down above, and thus the preparation was made for its becoming a mine of salt. Rock-salt is seldom pure, and generally of a reddish colour: a piece of it suspended by a string forms a good barometer or weather-glass; for when the atmosphere contains much humidity, the lump of salt is sure to be damp.

THE CHALK AGE.

Immediately above the Oolite formation is a series of beds, the most conspicuous of which are of chalk, a familiar substance, which

^{*} Dr Buckland, quoting an article by Professor Hitchcock, in the American Journal of Science and Arts: 1836.

science describes as a carbonate of lime, being thus a variation of the same substance as limestone and marble. The chalk-beds form the surface of large districts in England, France, Germany, and other parts of the earth. In the first-mentioned country they average from six to eight hundred feet in thickness, and form the beautiful pastoral wolds and downs of the southern counties. It is difficult to account for the formation of such a substance found in no other part of the series of rocks; but probably sea animals—coral polypes, infusoria, &c.—had much to do with it. It has been recently discovered that a similar deposit, composed of minute animals, is forming at the bottom of the Atlantic,* though we believe some peculiar condition of the waters, similar to that under which our more recent marls have been formed, was the principal cause of the formation. Throughout the chalk-beds are layers of flints—that is, masses of silex or flint of various sizes, from a pea to a man's head, each lying detached amidst the chalk. Whence this great quantity of a substance which seems to be characteristic of the chalk formation? The supposition is, that it has been derived mainly from the siliceous coverings of animalcules! The remains of many of these minute and humble animals have been discovered in the chalk, some of them being the first animals which yet exist as species upon earth. It has also been found that the flints invariably include the remains of some sponge or other humble animal form, the lineaments of which are often beautifully preserved amidst the dark glassy substance, and may be detected by a microscope, if not by the naked eye. Now, if the silex from the coverings of the dead infusoria were in solution amidst the settling substance of the chalk, any decaying sponges, alcyonia, sea-urchins, or other animals placed there, would be sure to collect the particles of the silex round them, and thus be converted into flints.

In the Chalk Age a great change takes place in the fish world. As already mentioned, the Placoids and Ganoids now decline in numbers, and are replaced by two other orders, the Ctenoids and Cycloids, which continue predominant, though in different species, to the present day. Turtles existed in the seas, though not numerous; and there were large birds of the swimming family.

THE TERTIARY FORMATION.

The rocks, from the conclusion of the Old Red Sandstone strata to that of the Chalk series, form an assemblage called, to distinguish them from the earlier rocks, the Secondary Formation. This secondary formation is now finished. It saw the animal creation advance from the simpler forms to an abundance of fishes and reptiles, with some few traces of creatures of higher organisation—remains of whale-like animals and of creatures allied to the opossum having been found in the oolite. During its progress, a uniform

temperature, equal at least to that of the tropics, spread over the whole earth, and under favour of this prevalent warmth, there was everywhere a vegetation such as we now see confined to the torrid zone. The species of plants and animals were all strikingly different from those of the present world; and at several stages there had been extensive changes of the families of the latter, some going out to appear no more, while others came into existence in their place. At the point which we have now reached, a close seems to have come to many of the earlier conditions, and in the subsequent age we see a dawn, as it were, of the present system of things. The uniformity of climate begins to give way, and the animals are consequently not uniform over various regions. Extensive convulsions of the earth appear in a great measure to have ceased. And the deposits of strata approach to the character of those which we now see constantly taking place in estuaries or limited portions of the sea. The Tertiary rocks seem to have been deposited in such seas, and are not so widely distributed over the earth as some of the other formations. One remarkable example is the vale in which Paris is situated; another is found under and around London. There are also examples in India and America. It is remarkable of the Paris basin, as it is called, that strata laid down by fresh-water alternate with marine beds, implying apparently that the estuary had been filled by turns with fresh and salt water, though how this could happen is not very easily to be understood. The Tertiary Formation has been divided into four lesser ages—Eocene, Miocene, Pliocene, and Pleistocene or Post-tertiary—with a regard to the proportions which their respective fossil shells bear to existing species.

ROCKS COMPOSED OF ANIMALCULES.

The fossils of the Tertiaries are in some respects more interesting than those of any other series of strata. It is not in the humbler classes of animals that this interest chiefly lies; and yet even in this department the Tertiaries present us with a wonder quite unexampled. We refer to beds of greater or less thickness composed exclusively of the solid remains of animalcules—creatures individually so small, that only a microscope could enable human eyes to see them. Such a rock (called Tripoli) is found at Bilin, in Bohemia, and at Planitz, near Zwickau, in Saxony. It has been used as a powder in some of the arts for ages, without any suspicion of its being thus composed. But within the last few years, M. Ehrenberg, a scientific Prussian, has fully ascertained that it consists simply and wholly of the siliceous coverings of certain minute creatures, some of which belonged to species still to be found in stagnant waters. To common perception, the powder of which the rock may be said to consist resembles flour; and in Norway, where it is accordingly called berg-mehl (that is, mountain-meal), it is actually used in times

of famine as food; for which it is not entirely unsuitable, seeing that there is always a small percentage of animal matter left in it, in addition to the siliceous shields. So extremely small are the creatures of which these rocks form the sepulchre, that, according to M. Ehrenberg's calculation, ten millions of millions of individuals might be required to fill the space of a cubic inch. Yet in the smallest of such creatures, there have been found several stomachs, besides other organs; and minute as the coverings necessarily are, they are found variously sculptured or marked, so as to form distinctions of species. These circumstances certainly afford a curious view not only of the wondrous power of the Creator, but of the surprising extent to which His most interesting production, the human mind, has been fitted to go in research, by aid of instruments,

the powers of which are also of His institution.

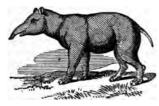
The other invertebrate animals of the Tertiary are not remarkable, except for their making a gradual approach to the appearance of those which now exist. The corals are generally of small size; the echinodermata are rare, compared with their abundance in earlier rocks; the crustaceans are not numerous; but insects begin to be found in abundance. The mollusca are extremely numerous in species; but the cephalopoda of the early seas seem to have now in a great measure given place to an order of meaner organisation (gasteropoda), which become much more varied in form than in the older rocks. Of fishes there are abundance of species; but reptiles, so conspicuous in the two preceding formations, are not now prominent. The great saurians or fish-lizards are extinct, and are not replaced by any similar families. At the commencement of the Tertiaries, three orders of reptiles existed-Chelonia (tortoises). Crocodilia, and Batrachia (frogs); another now existing, Ophidia (serpents), was, as far as research has yet gone, wanting. earliest appearance of the serpent is in the remains of one of large size (probably eleven feet long, and resembling the boa constrictor), which have been found in the London clay of the Isle of Sheppey. It is such an animal as could only live in a tropical climate.

We have seen that the existence of birds and mammalia has been very slightly evidenced in the Secondary Formation, shewing at least that these creatures were in very small number in the ages represented by those strata. We are now to see both of these classes—the highest in the animal kingdom—enter in great force upon the field of existence. It seems as if a considerable interval had existed between the conclusion of the Chalk Formation and the beginning of the Tertiary, for these classes come upon us all at once in numerous species in the Eocene. In fresh-water strata of that portion of the Tertiary in the great Paris basin, M. Cuvier found remains of about fifty extinct species of mammalia, together with various examples of birds. The birds were of the genera represented by the buzzard, owl, quail, woodcock, curlew, and pelican; and to these has

been added, from the corresponding strata in the London basin, a species referred to the family of vultures.

THE GREAT PACHYDERMS.

The most remarkable of the animals found in the Paris basin are large Pachyderms, or thick-skinned animals, of a division now represented only by four species. By the discovery of these remains, naturalists were enabled to make up a comparatively complete series of a division of the earth's creatures, which had previously been remarkably imperfect. Two genera are particularly described by geologists, namely, Palæotheria and Anoplotheria, the former being intermediate in character between the tapir of South America and the rhinoceros, while the latter seems a link from the rhinoceros to the hippopotamus. The Great Palæotherium was an animal of the size of a horse, or about four feet and a half to the wither. It was



Form of Palæotherium.

more squat and clumsy in its proportions than the horse; the head was more massive, and the extremities thicker and shorter. On each foot were three large toes, rounded and unprovided with claws; and from the nose proceeded a short fleshy trunk. The Palæotherium probably lived, like the tapir of North America and Asia, in swampy districts, feeding, as its congeners still do, on coarse vegetable substances.

The Anoplotheria, of which six species have been determined, were of various bulk, from a hare up to a dwarf ass. Two species were about eight feet long, including a tail of three feet. These animals seem also to have inhabited marshy places, repairing frequently to the water to feed upon roots and the leaves of aquatic succulents. Another species was light and graceful, like the gazelle, and probably, like that animal, fed upon aromatic herbs and the young shoots of shrubs. Amongst the other animals found in the Eocene of the Paris basin, were species of the wolf and fox, and of the racoon and genette, of the opossum, dormouse, and squirrel; besides birds, reptiles, and fishes.

The second, or Miocene period of the Tertiary age, brings us a step nearer to the existing condition of things. A strong proof of this is derived from the shells of the strata of this period. Whereas only three in the hundred Eocene fossils were of recent species, of the Miocene shells we find eighteen in the hundred to have existing representatives. Along with the mammalia, also, of the Eocene period, we find that the Miocene deposits present us with the earliest forms of animals existing at the present time. In Dr

Buckland's Bridgewater Treatise a table is given, exhibiting the animals found at Darmstadt in a bed of sand referrible to the Miocene period. In this list are mentioned two skeletons of the dinotherium (represented in the vignette to this tract), a large herbivorous animal, called by Cuvier the Gigantic Tapir; two large tapirs; calicotherium, two large tapir-like animals of this name; two rhinoceroses; hippotherium, an animal allied to the horse; three hogs; four large cats, some as large as a tiger; the creature called the Glutton; agnotherium, allied to the dog; and machairodus, an animal allied to the bear. From this list the reader will perceive the gradual approach in the Miocene animals to existing species. largest of the terrestrial mammalia yet discovered belongs to the period now under notice; it is the dinotherium, or gigantic tapir, already mentioned. No complete skeleton has yet been discovered: but from the bones found, Cuvier and others imagine the animal to have reached the extraordinary length of eighteen feet. remarkable peculiarities of its structure consist in two enormous tusks at the end of its lower jaw, and in the shoulder-blade, which resembles that of a mole, and is calculated to have given the power of digging, or other free movement, to the fore-foot. It seems probable that this stupendous creature lived in fresh-water lakes, and had the half-terrestrial half-aquatic habits of the walrus or riverhorse. The tusks might be used in digging up roots and plants, and also in sustaining the head on banks during sleep, or in pulling the body out of the water, as the walrus uses a similar pair of tusks. 'In these characters,' says Buckland, 'of this gigantic, herbivorous, aquatic quadruped, we recognise adaptations to the lacustrine (lakecovered) condition of the earth, during that portion of the Tertiary periods to which the existence of these seemingly anomalous creatures seems to have been limited.'

In the Miocene period, the seas became the habitation of numbers of marine mammalia, consisting of dolphins, whales, seals, walrus, and the lamantin, or manati. Few of these animals were of the same species as those which exist at present, but the differences were far from being great or remarkable. This circumstance, as well as the considerable number of fossil shells identical with existing ones, exhibits an approach in the character and tenantry of the Miocene seas to the present state of things in these respects. The discovery, also, of true terrestrial mammalia, as the rhinoceros and hog, in the Miocene formations, shews that, since the era of the gigantic reptiles, no slight portion of the earth's surface had assumed the condition of dry land, fit for the support of the common herbivora.

THE MASTODON, MEGATHERIUM, ETC.

It now remains to inquire into the nature and peculiarities of the animals characterising the Pliocene age, which, for convenience, has

been arranged into two periods, the Older and Newer Pliocene, the latter of which immediately preceded the formation of the diluvial layer constituting the present superficial matter of the globe. Whereas only eighteen in the hundred of the Miocene shells were of recent species, in the Older Pliocene from thirty-five to fifty, and in the Newer Pliocene not less than from ninety to ninety-five in the hundred, are identical with shells of existing species. This great change is accompanied by the disappearance of the Palæotherian family and others, which formed the most striking animals in the periods immediately preceding. In place of these extinct species of extinct Pachydermatous or thick-skinned families, we observe in the strata of the Pliocene periods a vast number of remains of existing Pachydermatous families, such as the elephant, the rhinoceros, and the hippopotamus, though these remains belong to varieties that are now extinct. The first traces also now appear of Ruminant animals—of oxen, deer, camels, and other creatures of the same class.

The enormous creature called the Great Mastodon, belonging to the Pliocene era, was the largest of all the fossil animals whose skeletons have been found complete, or nearly so. Much confusion has existed relative to this animal's true character, many naturalists regarding it as an extinct species of the elephant, and others holding that it approached nearer to the hippopotamus. Cuvier, however, determined it to be the head of a distinct family, comprehending several other species. It is about one hundred and twenty years since remains of the mastodon were first discovered in America, and vast quantities of them have been since found in the same region, buried chiefly in marshy grounds. One skeleton, nearly complete, was dug up on the banks of the Hudson in 1801, and it is from this that a correct knowledge of the animal has been principally derived. In height, the mastodon seems to have been about twelve feet, a stature which the Indian elephant occasionally attains. But the body of the mastodon was greatly elongated in comparison with the elephant's, and its limbs were thicker. The whole arrangement of the bony structure resembled that of the elephant, excepting in one point, which Cuvier regarded as of sufficient consequence to constitute the mastodon a different genus. This was the cheek-teeth, which are divided, on their upper surface, into a number of rounded, obtuse prominences, arranged not like the elephant's but like those of the wild boar and hippopotamus; whence it is concluded, that, like the latter animals, the mastodon must have lived on tender vegetables, roots, and aquatic plants, and could not have been carnivorous. The lower jaw of a skeleton found on the Hudson is two feet ten inches in length, and weighs sixty-three pounds. Like the elephant. the mastodon had two tusks, curving upwards, and formed of ivory, and, in the opinion of Cuvier, it had also a trunk of the same kind with the former animal's.

Another creature, belonging to the later Pliocene ages, if not indeed

to the era of the Diluvial formation, has been discovered in America, both north and south. This is the *Megatherium*, an animal more widely removed in character from any existing creature, than any ot the other fossil remains that have been yet observed. The megatherium was discovered towards the end of the last century. A skeleton, almost entire, was found nearly at one hundred feet of depth, in



Skeleton of Megatherium.

excavations made on the banks of the river Luxan, several leagues to the south-west of Buenos Ayres. The megatherium was a tardigrade (slow-moving) animal, like the sloth, and was at least the size of a common ox. Its limbs were terminated by five thick toes, attached to a series of huge flat metatarsal bones, or those bones with which the toes are continuous as in the human foot. 'Some of the toes,' says Buckland, in his notice of this creature,' are terminated by large and powerful claws of great length; the bones supporting these

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claws are composed partly of an axis, or pointed core, which filled the internal cavity of the horny claw; and partly of a bony sheath, that formed a strong case to receive and support its base.' These claws, from their position, were admirably calculated for the purpose of digging. The legs of this creature were of enormous thickness, its thigh-bone being nearly three times the thickness of the same bone in the elephant. The other bones of the megatherium were almost proportionably heavy. A still more remarkable feature, however, in the animal's structure, was the coat of armour, of solid bone, varying from three-fourths of an inch to an inch and a half in thickness, which covered its hide, in the same manner as the

armadillo's is encased by the same substance.

The habits and peculiarities of this stupendous sloth—for so the megatherium may be termed—are well described and explained in Dr Buckland's Bridgewater Treatise. After stating that with the head and shoulders of a sloth, it combined, in its legs and feet, an admixture of the characters of the ant-eater and the armadillo, and resembled them still more in being cased in a coat of armour, he continues: 'Its haunches were more than five feet wide, and its body twelve feet long and eight feet high; its feet were a yard in length, and terminated by most gigantic claws; its tail was probably clad in armour, and much larger than the tail of any other beast among living or extinct terrestrial mammalia. Thus heavily constructed, and ponderously accoutred, it could neither run, nor leap, nor climb, nor burrow under the ground, and in all its movements must have been necessarily slow; but what need of rapid locomotion to an animal whose occupation of digging roots for food was almost stationary?—and what need of speed for flight from foes to a creature whose giant carcass was encased in an impenetrable cuirass, and who by a single pat of his paw, or lash of his tail, could in an instant have demolished the cougar or the crocodile? Secure within the panoply of his bony armour, where was the enemy that would dare encounter this behemoth of the Pampas (the South American region where it existed), or in what more powerful creature can we find the cause that has effected the extirpation of his race?

'His entire frame was an apparatus of colossal mechanism, adapted exactly to the work it had to do; strong and ponderous, in proportion as this work was heavy, and calculated to be the vehicle of life and enjoyment to a gigantic race of quadrupeds; which, though they have ceased to be counted among the living inhabitants of our planet, have, in their fossil bones, left behind them imperishable monuments

of the consummate skill with which they were constructed.'

Another extinct tardigrade creature, presenting many of the characters of the megatherium, was discovered in a calcareous cavern in Virginia, and received from President Jefferson, who first described some of its bones, the name of the *Megalonyx*. Jefferson conceived the claw to be that of an extinct feline animal of vast size (that is to

say, an animal of the same description as the tiger, lion, cat, and lynx, all of which are beasts of prey); but the French naturalist declared the possessor of the claw to have been herbivorous, or calculated to live on herbs; and this was triumphantly proved by the discovery of others of its bones. The megalonyx appears (for a complete skeleton has not yet been found) to have been a little smaller in size than the megatherium. But the megalonyx, according to Cuvier, was herbivorous, after the manner of the sloth, since its teeth were conformed precisely like that animal's. From the resemblance of their feet also, he concludes that their gait was similar, and all their movements alike. The difference in volume of body, however, must have prevented the habits of the megalonyx from being perfectly analogous to those of the sloth. The megalonyx could but seldom have climbed up trees, because it must rarely have found any sufficiently strong to support its weight. But its height would enable it to browse, like the sloth, among the leaves of trees, without its being under the necessity of climbing any but such tall and strong ones as could bear its weight. It is even possible that the weight and strength of the creature may have been serviceable in bending down, and perhaps in overturning trees, the branches of which contained its food.

The next fossil animal to which we shall refer, is that long called the Mammoth, under the impression that it was a distinct genus, but which is now universally denominated the Fossil Elephant, as being an extinct species of that existing family. The mammoth (which name we shall retain for the sake of distinction) is rather to be regarded as a creature of the Diluvial than of the Pliocene period (that is to say, belonging to the age when, by means of floods, the present beds of gravel and hard clay, so often found between the rocks and vegetable soil, were laid down upon the earth), as some specimens have been discovered in Siberia, with portions of the flesh and hair actually preserved along with the bones among the ice. It was at first thought, when numbers of mammoth bones were discovered in Italy, and other southern countries of Europe, that they were the remains of elephants brought by the Romans and others from Asia and Africa; but the incalculable quantities of them ultimately detected in Russia and other districts, where elephants were never brought in the shape of oriental tribute as they were to Rome, shewed that their presence was to be attributed to natural causes, and not to the casual agency of man. In truth, the beds of the Volga, Don, and other northern rivers, are filled with them, and this can be accounted for only on the hypothesis, either of an alteration in the habits of the elephant, or of a great change of climate in these parts, or of some immense moving force on the face of the earth, which has carried them thither. The instance in which part of the flesh was found along with the bones, will supply us with a general description of the mammoth. When the animal, on this occasion, was first seen through

the mass of ice in which it lay, the soft parts were nearly entire. After the natives had fed their dogs for a long time with the mountainous hulk of flesh, Mr Adams of St Petersburg heard of it, and set out to see it. When he reached the spot, the skeleton was entire, with the exception of a fore-leg. The spine of the back, a shoulderblade, the pelvis, and the rest of the extremities, were still united by ligaments and a portion of the skin. The other shoulder-blade was found at some distance. The head was covered with a dry skin. One of the ears, in high preservation, was furnished with a tuft of hair, and the pupil of the eye was still discernible. The brain was found in the skull, but in a dry state. The neck was furnished with a long mane; and the skin, generally, was covered with black hairs and a reddish sort of wool. Of the quantity of hair and bristles that had been on the body, some idea may be formed from the fact, that thirty pounds of them were gathered from the ground, where the dogs, in eating the flesh, had dropt them. The tusks were more than nine feet long, and the head, without the tusks, weighed more than four hundred pounds. Altogether, the skeleton of this mammoth was about the size of a large elephant's.

Skeletons similar to this have been found in abundance on the shores of the Arctic Sea. They differ in several minute points of structure from the common elephant, and on this circumstance the most rational explanation of their being found in such cold climates is founded. This explanation is, that the mammoth elephant was of a species fitted to be a native of cold countries; and of this reasoning the different structure and the long thick hair are held to be proofs. Whether this may be the case or not, it seems certain that the mammoth's existence must have been very recent, and must have approached closely to, if not encroached on, the era of man.

Within the last few years, extensive researches have been made in the Tertiary strata of India, and some interesting results have been made partially known. In these strata are found Pachyderms similar to those of the Paris basin; as also species allied to the pig, camel, giraffe, elephant, and horse. Amongst several other new ruminant animals, is one which has been called the Sivatherium, and which must have surpassed even the rhinoceros in size. The cranium is of a huge irregular shape, presenting in front a nasal process of bone for the support of a proboscis or thick upper lip; likewise two pairs of prominences further back, from which horns must have proceeded. The sivatherium was a ruminant approaching in character to the Pachyderms. But even this huge creature sinks into insignificance beside another of the Indian Tertiary animals, a tortoise, of which many remains have been found, and which from these would appear to have been identical with existing species of land habits, but the carapace or back-plate, of which reached the extraordinary length of twenty feet. The Megalochelys Atlas, as this animal has been called,

would greatly exceed the largest of living land animals in bulk: with the head and tail included in the measurement, it could not be much less than thirty feet long. Dr Falconer, who discovered this singular animal, thinks it may have survived as a species till the peopling of India with human beings, and he thinks it may account for some of the tales of Hindu mythology, particularly that which represents the world as supported by an elephant standing on the back of a tortoise.

A few bones of monkeys, the family of animals approaching nearest to the human species, have been found in various parts of the world—at Kyson, near Woodbridge, in Surrey; in South America, and in India—all of them in Tertiary strata. As yet, no remains of human beings have been discovered in any similar situation. And hence it is inferred that the formation of the rocks terminating with the uppermost Tertiaries had been completed before

man came into existence.

Scattered over the north of Europe and America—not only on the level dales, but on the top of the highest hills—are large blocks of stone. The rocks are moreover grooved, as by the passing of some heavy body over them in one continued course. Vast accumulations of clay, mostly unfossiliferous, but occasionally with Arctic shells in it, are also found. This is known to the Scottish agriculturist as the till, and to geologists is a fertile subject of dispute, under the name of the boulder-clay. The generally received explanation is, that at one time there was an age of floods, when large tracts of country, before that dry land, were covered with water, destroying the animals and plants then living; succeeded by a cold period. when glaciers ground down from the valleys in the high mountains and hills, then mere islands in this glacial sea, and icebergs floated over the submerged land, grinding the rocks, and discharging their loads of earth and rock over the places where these are now found. as they do in the Arctic regions at the present day. The earth began to rise from the waters, and a warmer period succeeded; another distribution of land took place, and the present forms of animal and vegetable life suitable to these conditions were established. The successive risings of the submerged land are exhibited by the ancient sea-beaches which are found all over our own and other countries, as described by Dr Chambers in his Ancient Sea-Margins. The same submergence and upheaval is still going on, and though we are accustomed to talk of the 'stable land' and the 'unstable sea,' There is probably no portion of the world the contrary is true. which is not imperceptibly sinking or rising, though this has been more noted in northern countries than elsewhere. Celsius noticed, in the middle of last century, that former seaport towns on the Gulf of Bothnia were inland, and fishing-places deserted, because there was no water in the harbours.

It has since been found that the rise of land extended over a wide

area, at the rate of five feet in a century, though at Stockholm it was only a few inches. At other places there is a depression, as at Scania, in Sweden. In 1799, Linnaeus measured the distance of a stone from the sea, which in 1836 was a hundred feet nearer. There is also evidence of an alternation of sea and land at long intervals. Whilst digging a canal in 1819, the workmen passed through sixty feet of marine strata. They then came on fishermen's huts of the rudest description, containing the remains of fires, charred food, vessels with wooden plugs instead of nails, wood cut by some kind of hatchet, &c.—all betokening a state of things prior to the introduction of iron. Therefore we must conclude that the sea had come over the huts, and after the sixty feet of sand, shells, &c. had been deposited, they were elevated (when, we cannot say) to their present level. On the west coast of Greenland, there is a gradual sinking of the land. Huts are now under water, and the frames which the Esquimaux used to support their kayaks on are out in the sea. Yet there seems to have been a rise of the coast of Greenland previous to this—marine shells of living species being now found high above the sea-level.

The caves found in England and elsewhere containing the bones of hyenas, &c., may be referred to the beginning of the glacial period, or at latest to the period immediately preceding that age. In the valley of the Somme in France, and in other places, peat is found containing Celtic implements imbedded in it, and below this peat (which is of great thickness, and must have taken a very great length of time to form) are found gravels of a very much older date, containing bones of the mammoth, &c., with flint implements of an exceedingly primitive type. Sir Charles Lyell, who has investigated the whole subject, considers that these and other similar facts prove that man was contemporary in Europe with two species of extinct elephant, two species of extinct rhinoceros, at least one species of hippopotamus, the cave bear, cave lion, and cave hyena, beside various other species of extinct quadrupeds. 'While these were slowly passing away, the musk buffalo, the reindeer, and other Arctic species which have survived to our times, were retreating northward from the valley of the Thames and the Seine to their present more

Arctic haunts.

At that time, England must have been joined to the continent of Europe, and the British Islands to one another. Reasoning on such data, many eminent naturalists are beginning to entertain strong conviction that the date of man's advent on the globe is much more remote than is usually supposed; and though we must modify our views to a great extent, yet we must remember that the evidence laid before us is only tentative, and that we must wait patiently for the unravelling of the almost daily discoveries bearing on the subject, before we hastily cast aside the faith of ages.



LAROCHEJAQUELEIN AND THE WAR IN LA VENDÉE.



HE war in La Vendée is as interesting a struggle as any which occurs in history. Similar in many respects to that of the Scottish Highlanders under Montrose at the time of our own revolution, it is precisely the kind of struggle that will interest all who have any strong

patriotic feeling, any pity for the crushed and injured, any admiration for courage and daring, any regard for the noble men whom God

has made unfortunate.

In the year 1789-90, the revolutionary spirit had gone abroad over all France, except La Vendée, a district in the western part of the kingdom, adjoining the Atlantic Ocean on one side, and the Loire on another. The interior of this district, which we have sketched in the accompanying map, was called the Bocage, or thicket, and the strip on the sea-coast was styled the Marais, or marsh. The Bocage, plenteously covered with hedgerows and brushwood, formed a pretty rural scene, enriched with farm-houses, villages, churches, and old-fashioned châteaux, or residences of landed gentry.

At the period to which we allude, the population of La Vendée consisted in a great measure of small farmers, a prosperous and contented race, living under a body of kind landlords. According to all accounts, the relation between the landlord and his tenants was all that philanthropists could now desire. Nowhere had the aristocratic principle shone with so beneficent a lustre. The proprietors, most of whom belonged to the ranks of the nobility, were

LAROCHEJAQUELEIN AND THE WAR IN LA VENDEE.

constantly meeting, chatting, and laughing with their tenants, and, if need be, lending them their advice and assistance. The landlord's



family went to all the weddings, and on occasion of every festival, all the young people on the estate came to dance in the courtyard of the château. Returning from the gaieties of Paris, the gentry were careful to re-sume the primitive Vendéan habits. Fond of fieldsports, they invited all classes to join them; at the time and place appointed, they all met with their guns—farmers, peasants, and proprietors to-gether—each having his assigned place in the hunt. In this manner, by frequent out-door amusements and occupations, the Vendéans were physically a strong and hardy race.

With substantially noth-

ing to complain of, attached to their landlords, their religion, and the old forms of government, the people of La Vendée viewed the revolutionary outbreak with distrust, and shrunk from taking any part in the movement. They therefore remained tranquil until 1791, when the Constituent Assembly decreed that the clergy, like other public functionaries, should take the civic oath. The penalty for refusing was the loss of livings. Many thousands refused, and hence arose a distinction between the Constitutional and Nonconforming clergy. In the place of those who were ejected from their livings, others with a more convenient conscience were The clergy of La Vendée generally refused to take the oath; and, countenanced by the people, openly retained their parishes in spite of the government; an act of contumacy which could not long escape punishment. On the 29th of November 1791, a decree was accordingly passed peremptorily ordering all the priests who had not yet taken the civic oath to do so within a week, under pain of forfeiting the pensions they still held, of expulsion from the district if necessary, and, in certain cases, of imprisonment. The local authorities were stringently required to see this decree put in force, and they were empowered to put down every insurrection

LAROCHEJAQUELEIN AND THE WAR IN LA VENDEE.

with a strong hand. Intellectually to assist the operation of this decree, the refractory districts were to be flooded with cheap reprints of popular philosophical works, and with enlightened new publications—a project which proved of efficacy in many places, but was of small avail in La Vendée.

During the whole of 1792, La Vendée continued in a state of violent ebullition; the local authorities carrying out the decree with considerable rigour, and the peasants everywhere offering resistance. When they were turned out, the nonconforming clergy hid themselves in the woods; thither the people flocked to hear them, the men carrying muskets in their hands; and if they were surprised by the military, a skirmish took place. It was not till the spring of 1793, after the execution of the unfortunate Louis XVI., that anything like a rising took place, and then only in consequence of the new and stringent measures to raise men for the army of the Republic. The Convention, as the governing body was now called. on the 24th of February decreed a levy of 30,000 men throughout France. Every parish was to supply an allotted number of conscripts. Sunday the 10th of March had been fixed as the day of drawing in many parishes of Anjou and Poitou; and, in expectation of resistance, artillery and gendarmes were in attendance. In the town of St Florent, on the Loire, especial precautions had been adopted; cannons stood ready loaded to fire at a moment's notice. Some disturbance having broken out, a cannon was fired, and this was the signal for insurrection. René Forêt, a young man, heading a body of peasants, rushed forward, and seizing the gun, quickly dispersed the authorities, civil and military. The party afterwards proceeded to the municipality, took whatever arms they could find, collected all the papers, and made a bonfire of them amid huzzas and shouts of laughter. Having remained together for an hour or two in high spirits, they dispersed, each individual taking his own direction homeward through the Bocage, and reciting to every one he met the exploits of the day.

In the course of the evening, intelligence of this event was communicated to Jacques Cathelineau, a hawker of woollen goods in the small town of Pin. Jacques was a shrewd, painstaking, and neighbourly man; a good converser, and a species of oracle in the district. He was a middle-sized man, with a broad forehead, and in the prime of life, being thirty-five years of age. As soon as Jacques heard of the insurrection, he resolved on leaving wife and family, and putting himself at its head; it was, he said, the cause of God and religion, and it was plainly his duty to sit no longer idle. Acting on this impulse, he instantly set out, going from house to house scattering his burning words, and in a few hours he had twenty-seven followers, all vigorous and earnest. The civil war in

La Vendée had begun.

With his small and trusty band, Jacques proceeded onward to the

village of Poitevinière, recruiting all the way, and rousing the country by setting the church bells a-ringing. With about a hundred men, armed mostly with pitchforks and clubs, he made a bold beginning by attacking the château of Tallais, garrisoned by a hundred and fifty republican soldiers, or Blues, as they were contemptuously termed, commanded by a physician of the name of Bousseau, and possessed of one cannon. The attack was over in a moment. The cannon was fired; but the shot passed over their heads, and Cathelineau and his men dashed on to the hand-grapple. The Blues fled -Bousseau was taken prisoner. The peasants also got fire-arms, horses, and ammunition, and they had now procured a cannon. Delighted with the prize, they almost hugged it for joy, and with a mixture of pious faith and shrewdness, they christened it The Missionary. Losing no time at Tallais, they marched to Chemillé, where there was a garrison of two hundred Blues, with three cannon. The insurgents took Chemillé with even greater ease than they had taken Tallais, and were rewarded with more cannon and fire-arms. At the same time recruits were fast pouring in from all directions.

Meanwhile there were similar commotions in other parts of the Bocage. Forêt, the hot-spirited young man who had begun the affray at St Florent, had gone home, like the rest, that evening; he lived at Chanzeaux. Next morning, a party of gendarmes, led by a guide, came to arrest him. Forêt, who expected the visit, saw them coming, fired, killed the guide, and then darting off through the hedges, ran to the church and set the bell a-ringing. The peasants flocked out and gathered round him. Another rising took place at a short distance, on the estate of Maulévrier. The proprietor was absent, and nobody representing him was on the property except the garde chasse, or gamekeeper. This man's name was Nicolas Stofflet. He was a large and powerful man, of German descent, with stern, strongly marked features, a swarthy complexion, black hair and black eyes, and had a vehement determined way of speaking, with a German accent. He was forty years of age, had served sixteen of these in the army, where his courage and strong sense had raised him above the rank of a common soldier, and it was there that he had attracted the notice of the proprietor of Maulévrier, on whose estate he now held the situation of gamekeeper. Though noted for a blunt, harsh, positive manner, he had an extraordinary degree of native sagacity, great acquired knowledge of affairs, a frame of iron, and the courage of a desperado. On the day that the gendarmes went to arrest Forêt, a detachment of national guards came from Cholet, a town in the neighbourhood, to the château of Maulévrier, and carried off twelve cannon, which were kept as family relics. Burning with rage at this insult, Stofflet vowed vengeance, and roused the peasantry to the number of two hundred. This was on the 11th. On the 14th, these two bands.

Stofflet's and Forêt's, with others raised in a similar manner, joined themselves to that of Cathelineau.

On the 16th, these combined forces attacked Cholet. Beating the national guards, they gained possession of a considerable quantity of arms, money, and ammunition. Scarcely was the combat over, when Cathelineau hearing that the national guards of Saumur were at that moment on their way to Vihiers, sent a part of his forces to attack them. At Vihiers, the guards fled, abandoning their arms, and among the rest a peculiar-looking brass cannon. This cannon had been taken from the Château de Richelieu, and was the identical one which Louis XIII. had given to the great Cardinal Richelieu. The peasants immediately conceived a great veneration for this precious relic. They thought they could trace in the engraving with which it was covered an image of the Virgin, and so they called it Marie Jeanne.

It was now Saturday night, and to-morrow was Easter Sunday. Cathelineau's little army broke up, the peasants all wending their way through the bushy labyrinth to their several homes, to prepare for the solemnities of the morrow. They were to re-assemble when these were over. Thoughts of the events of the past week, and of the dangers of the enterprise to which they had committed themselves, mingled, we may suppose, with their prayers and pious ceremonies. Cathelineau, at least, had been thinking busily; for we shall find that, on the reassembling of the little army, he came

prepared with a scheme for their future proceedings.

In a single week, it is observed, not a little had been effected in the district, which embraced the south of Anjou and the north of Poitou. But all through the south of Bretagne, and the lower part of Poitou, including the district called the Marais, the draughting of recruits had been attended with similar effects. At Chalais and Machecoul especially, there were vigorous demonstrations. At the former town, one Gaston, a barber, who had killed a revolutionist officer, headed the rising. At Machecoul, the outbreak was headed by a private gentleman, a keen royalist, who had been a lieutenant in the navy, had seen some of the terrible doings at Paris, and was now living on a small estate. His name was the Chevalier de Charette. Twice the peasants about Machecoul came to him, begging him to come and be their leader, and as often he refused, They came a third time, threatening to kill him if he did not comply with their wishes. 'Oh,' said Charette, 'you force me, do you? Well, then, I shall be your leader; but, remember, the first one who disobeys me, I shall blow his brains out.' Charette was as extraordinary a man as any of the Vendée heroes, though different in character from them all; but his story is the narrative of a whole insurrection in itself, which continued later than that with which alone we are at present concerned, and therefore we pass him by with a slight notice. The army which he led was called that of

Bas-Poitou, to distinguish it from the Vendée army which Cathelineau headed, and which was called the army of Haut-Poitou. The existence of these two armies, conducting operations near each other at the same time, but totally independent of each other, is to be borne in remembrance. While we are following the proceedings of the army of Haut-Poitou, it is to be recollected, therefore, that another army was carrying on similar operations. Occasionally the two armies co-operated; Charette, however, seems to have disliked acting in concert with other commanders, and regulated his own movements.

To return to Cathelineau and Stofflet. After Easter, the peasants reassembled in large numbers. One of Cathelineau's first propositions, after the little army collected, was to insist upon the necessity of securing one or two royalist gentlemen to join their enterprise and become its leaders. 'It is for the nobles to be our generals,' said he. 'We are as brave as they are; but they understand the art of war better than we do.' The proposal was received with enthusiasm; and that day, by dint of entreaties and deputations, they dragged three of the most popular royalist gentlemen of the neighbourhood out of the retirement of their châteaux. These were M. de Bonchamp, M. d'Elbée, and M. Dommaigné. Bonchamp was a man of about thirty-three years of age, and of noble family: he had served in India, but had resigned his commission on being required to take the Revolution oath; had emigrated, but after a little while returned to his estate in the Bocage. He was one of the ablest and best-liked officers the Vendéans ever had; and his great military experience made his services particularly valuable. D'Elbée had served in the army too; he was a little man of about forty years. of age, with good abilities, and great personal courage; exceedingly devout, somewhat vain, consequential, and touchy. The last of the three gentlemen mentioned, Dommaigné, had been a captain of carabineers, and was also a valuable acquisition. Having secured these three generals to share the command with Cathelineau and Stofflet, the peasants were prepared for all that might come against them.

At that time, there was living at the château of Clisson, farther south in Poitou than the scene of the occurrences we have been describing, a royalist family named Lescure. The Marquis de Lescure, the head of the family, was a young man of twenty-six years of age, who had lately inherited the property from his father, and been married to Mademoiselle Donnissan, a young lady who had been on terms of intimacy with the queen and other members of the royal family. Having fortunately escaped from Paris when their lives were menaced by a revolutionary mob, they retreated to their castle of Clisson, where their hospitality was extended to a number of distressed royalists.

Among the personages who had taken up their residence at Clisson,

there was a young man, a friend of M. de Lescure, by name Henri du Verger, Count de Larochejaquelein. This young man, the son of a colonel, was himself a cavalry-officer in the king's guard. Though all his family had emigrated, Henri would not, and, leaving Paris after the terrible 10th of August 1792, he was heard to say: 'I am going to my native province, and you will shortly hear something of me.' After residing for some time by himself in his château of La Durbellière, situated in one of the disturbed parishes, he had come to live with his friend Lescure at Clisson. He was only twenty years of age, but tall, and singularly handsome. With fair hair, a fine oval face, more English than French, and a proud eagle look, never did hussar sit on horseback with a nobler bearing than that of the generous, dashing, chivalrous Henri. His appearance, indeed, was exceedingly prepossessing, and his conversation only increased the fascination of his manner. It was pleasant to hear him speak; his mode of expressing himself was so simple, so intense, so quaint, so laconic. At present, his fault was in being too impulsive, too daring; but this high-souled impatience seemed to make him more an object of attraction. The peasants adored him. And afterwards, when they saw him dashing on at their head into the thick of the enemy, the first man in a charge or defending a bridge, making his horse wheel and his sabre flash amid whistling bullets, or the last man in a retreat, they could have stood still and looked on for sheer admiration. Such was Henri Larochejaquelein.

During the early part of the insurrection, none of the inmates of Clisson had thought it necessary to interfere; but now it was evident that the time had arrived when they should take part either with the peasants or with the authorities. It was decided that when it became necessary to act, they would all join the insurrection. The day was approaching when the militia were to be drawn for in the parish in which Clisson was situated, and young Larocheiaquelein had to submit to be drawn for with the rest. The evening before the drawing, a young peasant came to the château charged with a message to Henri from his aunt Mademoiselle de Larochejaquelein, who resided a little way off, near the scene of Charette's This young man told Henri that the peasants in the operations. quarter from which he had come were going to rise to-morrow, and that they were all exceedingly anxious to have him for their leader. Henri, whose mind was already made up, and who, in fact, was only waiting for a good opportunity, declared his readiness to go that instant. Lescure was for accompanying him, but Henri urged the folly of committing a whole family, till it should be ascertained whether the enterprise were feasible. It was then urged by Madame Donnissan that Henri's departure might draw down the vengeance of the authorities on the inmates of the château; and this almost had the effect of shaking the young man's resolution; but at last, putting on that energetic look which never afterwards left him.

he exclaimed: 'If they do arrest you, I shall come and deliver

you.'

This intrepid young man accordingly set out to join the insurgents; and shortly after his departure, the other inmates of the castle, including Lescure and his wife, were taken into custody, and conducted to Bressuire, where we shall leave them in confinement, till we return to the general course of the war.

PROGRESS OF THE WAR.

For several weeks after Easter, the insurrection spread like wildfire over the whole of Anjou and Haut-Poitou, and, generally speaking, the authorities of the district, with all the military they could command, were completely worsted. The Convention, roused by the intelligence that all La Vendée was in a blaze, took strong and decisive measures. On the 2d of April, a decree was passed appointing a military commission, with authority to try and execute, within twenty-four hours, all peasants taken with arms in their hands, as well as all who should be denounced as suspicious persons. Two representatives or delegates of the Convention were to see these measures put in force. Berruyer, a fresh general, was sent down to supersede Marce. A large army of reserve, levied for the defence of Paris, and composed principally of Parisian sans-culottes, were marched into the Bocage, with two more representatives in their train. After a little skirmishing, Berruyer and his army made their way into the heart of the Bocage, whither also Cathelineau, Stofflet, Bonchamp, and D'Elbée were on their march at the head of a large straggling mass of peasants. The two came in sight of each other on the 11th of April at Chemillé, and there halted. On the morrow, the peasants were to fight their first pitched battle, and accordingly great were the bustle and preparation. Among the Vendéans there was an old artilleryman of the name of Bruno, and to this man Cathelineau had intrusted the pointing of the cannon. All the day before the battle, Bruno was going about more excited than usual, and bragging that he would be a rich man yet; and this being somewhat suspicious, he was watched, and detected in the night-time pulling out the charges of the cannons, and reloading them with earth and sand instead of iron. Bruno was instantly shot, and his body thrown into a river—the first and last Vendéan, the peasants boast, that ever was a traitor. Next day, when the fight began, the revolutionary soldiers were somewhat disconcerted when the cannon of the enemy fired iron instead of sand. Part of the army, however, headed by Berruyer, fought heroically till the The cartridges of the peasants were now beginning to fail, and their spirits were flagging, when, two bodies of the enemy committing the mistake of falling foul of each other in the darkness, a confusion arose, which D'Elbée and his men taking advantage

of, a complete havoc and dispersion was the result. Berruver was compelled to retreat, pursued by the Vendéans. Thus, though not without great loss, the peasants had gained their first pitched battle: and often in their subsequent reverses did they encourage themselves by recollecting 'the grand shock of Chemillé.' Berruyer wrote to the Committee of Public Safety, announcing his defeat. It was no insignificant affair, he told them, this Vendée insurrection. peasants, he said, were brave, and fought with the enthusiasm of fanatics who believed death in the field to be a passport to heaven. He complained, too, of the miserably ill-provided state of his army, and of the cowardice of the new recruits, who, he said, would not stand fire. This report was of course kept secret from the public; the success of the Revolution, like that of every other enterprise, depending greatly on its being thought to be succeeding. But Berruyer was not a man to be easily beaten. He continued in the Bocage, his columns advancing and coming into frequent collision with the Vendéans; now routed, now victorious; avoiding another general engagement in the meantime, but gradually creeping round the insurgent army, and encircling it with a chain of posts.

It was at this point in the progress of the war that Henri Larochejaquelein arrived among the insurgents, having been necessarily detained a few days at St Aubin, the residence of his aunt, by the way. He was received with gloomy despair. Bonchamp and Cathelineau told him that it would not be possible to continue under arms, for all the posts were in the hands of the enemy; the stock of ammunition was exhausted; and, to crown the evil, the peasants, unaccustomed to be long absent from home, were bent upon disbanding. Ruin, they told their young and sanguine visitor, was inevitable. Henri did not stay to hear more, but went back to his aunt's at St Aubin. Here, again, bad news awaited him. Blues were at the door; they had pressed forward from Bressuire, and taken Aubières. The peasants all round were inconceivably excited; they had hoisted the white flag on all their churches; they wished to fight the Blues, but they had no leader. Hearing that young Larochejaquelein was at his aunt's, they came to him in crowds, beseeching him to put himself at their head. They wanted to fight, they said; and in a day's time there would be more than ten thousand of them. Henri assented: away they ran to spread the news. All night the church-bells were tolling; the fields were indistinctly swarming in the dusk with men making their way in twos and threes from their farm-houses through the wickets in the hedges; and a constant stream was creeping in the darkness through the labyrinth of paths, speaking determinedly to each other with suppressed voices. Early in the morning they had assembled almost to the promised number. Some had sticks, many had pitchforks, others had spits; their fire-arms amounted altogether to only two hundred fowling-pieces. Henri had managed to procure about sixty

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pounds of quarriers' gunpowder. When the young leader appeared to inspect his troops, they stopped eating the pieces of brown bread they held in their hands, and gathered eagerly round him. 'My friends,' said he, 'if my father were here, you would have confidence in him. For me, I am but a boy; but I shall prove by my courage that I am worthy to lead you. If I advance, follow me; if I flinch, kill me; if I die, avenge me!' 'There spoke a hero,' said Napoleon afterwards, quoting the speech, as being exactly the thing for the Vendéans. The cheering was loud and long; and when, not having breakfasted, he took a hunch of their brown bread, and ate it along with them, while somebody had gone away for a white loaf, oh! they could have hugged him to their very hearts for fondness. God bless him, their fair-haired, heroic young leader!

They went to Aubières first; the peasants, notwithstanding their zeal, being not a little frightened, not knowing exactly what a battle was like, nor how they should behave in it. With very little trouble they expelled the Blues out of the village, chasing them almost to Bressuire. But anxious as he was to release Lescure, Larochejaquelein thought it better to go and extricate Cathelineau and his army out of their difficulties; so he marched to Tiffauges with the cannon and ammunition he had taken; and by the help of this reinforcement, the Vendéan army was soon able to redeem its losses, retake Cholet and Chemillé, and beat the enemy out of all their

strong positions.

The army advanced upon Bressuire; and the rumour that the brigands, as the Vendéans were named, were coming, drove the Blues out of that town, retreating to Thouars. Lescure, with his wife and friends, were now released, and having reached their château, they were planning means for joining the insurgents, when Henri Larochejaquelein galloped into the courtyard. He explained to them the state of affairs, and the prospects of the insurrection. The grand army of Haut-Poitou, commanded by Cathelineau, Bonchamp, Stofflet, &c. consisted, he said, of 20,000 men; and on any emergency they had but to sound the tocsin, and it would swell to 40,000. In addition to these, there was a body of 12,000 natives of Bretagne, who had crossed the Loire, and joined the grand army. Then in the Marais, on the sea-coast, Charette had an army of 20,000, and was doing wonders. Besides all these, there were numerous bands fighting here and there under other leaders. An account so promising put them all in high spirits; and it was agreed that Lescure should accompany his friend to Bressuire next day to join the army; that the Marquis de Donnissan, Madame Lescure's father, should follow them as soon as possible; and that Madame Lescure, Madame Donnissan, and the rest, should be conveyed to the Château de la Boulaye, which would be the safest residence. On joining the insurgents, Lescure, as a matter of course, became one of their generals. Donnissan, not being a Vendéan by birth,

would assume no direct command; but all through the war he exerted a species of governing influence.

MILITARY ORGANISATION-THE WAR AT ITS HEIGHT.

The organisation of the Vendéan armies was peculiar. A staff always remained in arms; but the great mass of the army fluctuated, assembling and disbanding with the occasion. When anything was to be done, the windmill sails were seen going on the hills, the horns were heard blowing in the woods, and persons on the watch set the church bells a-tolling. The people, flocking to the church, were summoned, in the name of God and the king, to assemble at a particular hour and place. The men set out immediately, taking provisions with them; the gentry and rich people of the parishes supplying grain and cattle. All along the road, too, women used to be waiting, telling their beads on their knees, offering provisions to the men as they passed on to the rendezvous. The expeditions never lasted more than four or five days. After either a victory or a defeat, the army melted away like a mass in a state of dissolution, and no entreaty could prevail on the peasants to remain together, either to follow up the one or to retrieve the other; so much did they long, after a day or two's absence, to revisit their farms and their homes. Obedient enough in the field of battle, the peasants did not consider themselves deprived of the right of judging what ought to be done on any given occasion; and if their generals did anything they thought wrong or unfair, they very freely said so. At first there was no commander-in-chief, but each of the generals commanded the peasants of his own neighbourhood—Cathelineau those of Pin, Stofflet those of Maulévrier, &c.; and the generals together formed a council of war. Of the inferior officers, some were gentlemen, and some were peasants; the bravest and best-informed men becoming officers in the mere jostle with each other. As relations and neighbours served in the same body, it was noted that they were very attentive to each other, and that if one were wounded, he was carefully conveyed out of the field by his comrades. There were physicians in the army, who took charge of the wounded; and there was a kind of central hospital at St Laurent. For dress, the men had common blue overcoats, with woollen bonnets or broad-rimmed hats adorned with knots of white ribbons.

In one of their early battles, La Rochejaquelein was seen fighting with a red handkerchief tied brigand-fashion round his head, and another round his waist, holding his pistols. 'Aim at the red handkerchief,' cried the Blues. The officers and men insisted on his giving up what made him so conspicuous a mark for bullets; but he would not; and so after that the red handkerchiefs became common in the army. The officers did not use the ordinary military phraseology. Instead of saying: 'To the right,' 'To the left,' and

such-like, they told their men to go up to that white house, or to go round about that large tree, &c. The favourite manœuvre of the Vendéans was 'going to the shock,' as they called it; that is, seizing the enemy's artillery. The strongest and most active among them went straight up to the battery; the moment they saw the flash, they fell flat on their faces, letting the iron shower whiz overhead; then springing up, they rushed forward, leaped on the cannon, and grappled with the artillerymen. Frequently, also, they used to lie in wait for a band of republicans they knew to be approaching. In that case, the order given by the commander, when he was aware the enemy were near, was 'Eparpillez vous, mes gars' ('Scatter yourselves, boys'). Instantly the whole mass would disperse hither and thither, parties of six and seven creeping stealthily along, concealing themselves behind hedges and bushes, one hand resting on the ground, the other holding the fatal gun. All is still as death, the trees and bushes waving treacherously in the wind. doomed troop comes marching on, preceded by scouts, feeling as if some unknown danger were near. As soon as they are fairly jammed up in the path, as in a huge gutter, a cry is heard not far off, like that of an owl. Suddenly, from behind every tuft, every bush, there issues a flash; scores of men fall among their comrades' feet, blocking up the path, and throwing the whole troop into confusion. Enraged and infuriated, they try to scale the banks on both sides of the path to come at their unseen assailants, who by this time, however, are behind another row of hedges, recharging their guns.

Let us now pursue the route of the grand army, which we left at Bressuire. From that town they marched straight to Thouars, to which, it will be remembered, the Blues had retreated after evacuating Bressuire. On the 7th of May they attacked this town. First, there was a distant cannonading, then a hard fight crossing a bridge, then a battering down of old rotten walls; and at last, Ouetineau, the brave republican general who commanded, was obliged to surrender. The inhabitants of Thouars were in a great panic, especially the public functionaries; but all the mischief the royalists did, after the surrender of the town, was to burn the Tree of Liberty, and, as was their usual practice, all the papers of the administration. At Thouars the army gained several important accessions, some of them young and noble emigrants, who embraced this opportunity of fighting in behalf of royalty; others were deserters from the republicans. There came in one singular personage, a tall man of imposing mien, whom some of the royalist officers recognised as the Abbé Guyot de Folleville, a priest who had originally taken the civic oath, but had afterwards recanted, left Paris, and settled in Poitou, where he soon aquired a great reputation for sanctity. In an interview which he had with the generals, this man styled himself Bishop of Agra, telling them a strange story

of his being one of four apostolic vicars appointed by the Pope for the whole of France, and of his having been secretly consecrated by a conclave of the nonjuring bishops held at St Germain. The story was feasible enough, and no one discredited it. Nothing could exceed the joy of the devout peasants on being told that their cause was now blessed by the presence and countenance of no less a man

than the holy Abbé Folleville, Bishop of Agra.

After staying about a week at Thouars, the royalists, greatly reduced in numbers, set out for Fontenay, passing through Parthenay and Chataigneraie. Reaching Fontenay on the 16th of May, they made a brisk attack; but were eventually, owing to the smallness of their force, repulsed with the loss of almost all their artillery, Marie Jeanne included. This defeat, the priests impressed upon them, was nothing else than a divine judgment for certain excesses committed at Chataigneraie, on their march to Fontenay. Giving the army already assembled a day or two's rest, Cathelineau left it at Fontenay, scouring the Bocage in person, everywhere shewing his broad calm forehead, rousing the downcast peasants. In nine days he was back with fresh forces; and, urged on by an enthusiasm half-martial half-religious, the royalists again attacked Fontenay without cannon, without ammunition, without everything by the help of which towns are usually taken, confiding in the Bishop of Agra's blessing and their own desperate hand-grapple. Fontenay was taken; and, what delighted the peasants more, Marie Jeanne, the best beloved of their cannon, was their own again, torn by the valour of young Forêt from the hands of the retreating enemy as they were dragging it away to Niort. The prisoners taken at Fontenay had their heads shaven, in order that they might be known again, and were then dismissed; and this plan of treating the prisoners became general.

While resting at Fontenay after the battle, and deliberating what should be their next route, the generals were struck with the necessity, now that they were actually wresting the Bocage out of the hands of the Revolution, of establishing some kind of government, to reside permanently in a central locality, administer the affairs of the whole district, and also provide supplies for the army: while the generals, relieved in this way of all civil care, should be marching from place to place, storming towns, and fighting the enemy. Accordingly, a body of eighteen or nineteen persons was appointed to sit at Chatillon, and administer affairs under the title of the Superior Council. Of this council the Bishop of Agra was president; there were many advocates among the members: but the master-intellect in it, and the man who, by the force of his overbearing energy, carried everything his own way, was an ecclesiastic, the Abbé Bernier, a bold, griping, ambitious, essentially bad and selfish man, with a deep scheming brain, a commanding person, a

ready eloquent pen, and a fine sounding voice.

In these arrangements the generals spent some time, the peasants as usual dispersing themselves through the Bocage. Meanwhile the Convention, roused to the absolute necessity of doing something decisive, and dissatisfied with the bad management of Berruyer, sent down, to supersede him in the command, Biron, a brave unfortunate man, who dishonourably served a Revolution he disagreed with, and died on the scaffold declaring himself a royalist. Biron's subordinates were Santerre the brewer, and Westermann, whose abilities and inhumanity did so much for the Revolution which guillotined him. Fresh troops were also sent into La Vendée. They were already occupying strong positions in the north of Poitou. The most important of these was Saumur, a considerable town on the Loire. The royalists therefore determined to march north again and attack this town. After some fighting by the way, they arrived at Saumur on the 9th of June, spent the night in pious exercises, and next morning commenced the attack in three parties. Lescure, fighting at the head of one, was wounded, his men fled, and the rout of that division would have been complete but for a lucky accident. Two wagons had been overturned on a bridge, and this checked the pursuit, and gave the fugitives time to rally. At the head of another division, La Rochejaquelein and Cathelineau attacked a body of republicans encamped outside the town. The ditch was crossed, and Henri, flinging his hat with its feather inside the fortifications, cried out: 'Who will go and fetch it?' and then sprang in himself, followed by Cathelineau and a number more. Evening put an end to the conflict, which it was resolved to renew in the morning; but so great had been the loss sustained by the Blues, that they evacuated the town in the night-time, leaving the besiegers a great many prisoners, plenty of ammunition, eighty cannon, and some thousand muskets. Remaining a day or two at Saumur, the insurgents were joined by several individuals already distinguished, or who afterwards became so; among others, by the Prince de Talmont, a young and noble emigrant, who had hitherto been leading a dissolute life in England, but had now resolved to give himself up to great actions. Here also the generals came to the important resolution of appointing some one of their number commander-in-chief. But which of them all should it be?—the simple, peasant-like, God-fearing Cathelineau, with his broad forehead, large heart, and fiery utterance; the swarthy, iron-visaged Stofflet; the gentle, unassuming Bonchamp, with his powerful inventive faculty and great military experience; the somewhat consequential and pedantic, but really devout and well-meaning D'Elbée; the grave, silent, thinking Lescure, so recollective and so resolute; or the odd-opinioned, outspoken, chivalrous, high-souled young Henri? Lescure, whose character it befitted to make the proposal, named Cathelineau, and Cathelineau was unanimously appointed general-in-chief of the royalist army of Louis XVII.

Alas! the noble peasant-commander had not long to live. The republicans, after the loss of Saumur, had vacated all the surrounding district, and concentrated their strength in Nantes, a large town also situated on the Loire, but some fifty or sixty miles west of Saumur, and not far from the sea-coast. The royalist generals deliberated what should be their next step; there was a keen debate, Stofflet almost quarrelling with Bonchamp for proposing a plan which required delay; but at last, most of the generals siding with Stofflet, it was resolved to besiege Nantes. This town being in the province of the Bretons, they hoped, by taking it, to draw into the insurrection the whole of that hardy population. Accordingly, leaving Lescure wounded at La Boulaye, and Larochejaquelein, much against his will, in Saumur with a garrison, the royalist army set out for Nantes along the northern bank of the Loire, sweeping its route clear of the few straggling republicans that were left, and picking up recruits as it went on. Still, as this line of march did not lie through the Bocage, and as the peasants had a strong repugnance to fighting far away from home, Cathelineau reached Nantes with a force much smaller than usual. To make up for this, however, Charette, who had been carrying on an independent set of military operations in the district bordering on the sea, was prevailed upon by the representations of Lescure to join his forces with those of Cathelineau, and co-operate with him at least in the present siege. The idea of trying to bring about a permanent coalition between the royalist army of Haut-Poitou under Cathelineau, and that of Bas-Poitou under Charette—a coalition which Napoleon emphatically declares might have crushed the Republic-originated either with Bonchamp or with Larochejaquelein. The siege of Nantes, however, was almost the only case in which the two armies really co-operated. On the evening of the 28th of June, the republican sentinels of Nantes saw far off in the horizon the bivouac-fires of the approaching royalist army, and heard their horns blowing like the lowing of bulls. The commanders, Beysser and Canclaux, prepared for the attack of the morning. The fight was long and bloody: the royalists had penetrated the suburbs; the Blues were giving way; they were flying; when, unluckily, the Prince de Talmont turned two cannon upon a path of exit from the town, into which the fugitives were crowding, and which Cathelineau had purposely left open. Beysser saw this mistake, rallied his troops, who now began to fight with the courage of despair. Cathelineau, who had already had two horses killed under him, gathered a few faithful men of his native village round him for a last decisive effort: making all of them the sign of the cross after their leader, they dashed themselves impetuously against this single obstacle between them and a great victory. The shock was irresistible. Cathelineau was fighting in the crowded street: at this moment a gun was seen pointed from a window; it was fired: Cathelineau fell, wounded in the breast. It ran from

rank to rank: 'Cathelineau is wounded—is dead!' The royalists lost all courage; Beysser rallied, and drove them out of the town; their retreat being made less disastrous, however, by the exertions of Charette. The attack on Nantes had ended fatally for the royalists. They had lost a great number of men, and some of their best officers; but all their other losses were felt as nothing compared with that blow which, in the first moment of their grief, seemed to reduce them to utter helplessness, and to make their cause hardly worth defending any more. The good Cathelineau was mortally wounded, and had not long to live. The army broke up dispirited, crossing the Loire in parties, and carrying the sad news, like a desolation, to all the firesides in the woodlands of La Vendée.

Larochejaquelein had a perplexing duty to perform at Saumur. Cruelly deserted by his followers, he found it necessary to abandon the place, and proceed to Chatillon, where a consultation on the general state of affairs was necessary. The republican army under Westermann was burning and slaying in the Bocage—the castle of Clisson, among other places, being destroyed; and to arrest this inroad was the first object of the Vendéan chiefs. On the 8th of July an engagement between the two parties took place. Westermann's army was almost annihilated, and, exasperated by his cruelties, the royalists inflicted a terrible retaliation on their prisoners. Westermann himself escaped with difficulty. Shortly afterwards he appeared at the bar of the Convention to answer a charge of treachery. founded on the fact of his defeat; and it was only by a piece of singular good-fortune that the honest but iron-hearted soldier was reinstated in his command. An attempt was made by Biron to retrieve Westermann's defeat, by sending a strong force under Santerre to make a similar inroad into another part of the Bocage. An engagement ensued at Vihiers, which effectually cleared the interior of the Bocage of republican troops, and the latter end of the month of July was spent by the wearied Vendéans in the comparative tranquillity of their usual occupations.

Unfortunately, all the successes of the Vendéans ended in nothing. The war had lasted a considerable time; there had been much fighting; several decided victories had been gained over the armies of the republic; the insurrection had forced itself upon the attention of the powers directing the Revolution, till it became a great subject of interest in Paris; but all this without any sign of its being a whit nearer its immediate object—namely, the shutting out of the Revolution from La Vendée; much less of its being nearer the great object which had grown out of the other, and come to occupy the foreground of the whole movement—the extinction of the republic, and the restoration of royalty in France. This was felt by the Vendéan leaders, and they henceforward resolved on a more specific aim: but they possessed little power to carry their schemes into execution; and the division into two armies, one under Cathelineau, and another

under Charette, was a fatal error. It was afterwards remarked by Bonaparte, that if these two armies had united, and gone straight to Paris, a counter-revolution would in all likelihood have been the result. One of the plans of the Vendéans was to combine their scattered forces, and they began by appointing D'Elbée as commander-in-chief, in room of the unfortunate Cathelineau, who had died of his wounds. Another plan was, to open up a communication with foreign powers, especially England; procure, if possible, the landing of an English army on the west coast, join forces with it, and, thus strengthened, give battle to the armies of the republic.

While the council was deliberating on these determinate modes of action, government became still more alarmed at the progress of the insurrection. It had now lasted five months, and the Convention perceived that if it lasted much longer, it would attract the eyes of Europe, and become a royalist vortex in the heart of the Revolution. The finishing of the war in La Vendée, therefore, seemed no longer like the mere healing of a local eruption; it became equivalent to cutting out a cancer. 'It is with La Vendée,' says Barère, in his report of the 2d of August, 'that the aristocrats, the federalists, the department men, and the section men hold correspondence. It is with La Vendée that the culpable designs of Marseille are connected, the disgraceful venality of Toulon, the movements of Ardèche, the troubles of Lozère, the conspiracies of Eure and Calvados, the hopes of Sarthe and Mayenne, the bad spirit of Angers, and the sluggish agitations of ancient Bretagne. Destroy La Vendée, and Valenciennes and Condé will no longer be in the hands of the Austrian. Destroy La Vendée, and the English will no longer occupy Dunkirk. Destroy La Vendée, and the Rhine will be freed of the Prussians. Destroy La Vendée, and Spain will see itself torn to pieces, conquered by the forces of the south, joined to the victorious soldiery of Mortagne and Cholet. Destroy La Vendée, and Lyon will resist no more, Toulon will rise against the Spaniards and the English, and the spirit of Marseille will rise to the level of the Republican Revolution. In fine, every blow which you aim at La Vendée will resound through the rebel towns, the federalist departments, and the invaded frontiers.'

These sonorous and sanguinary sayings were followed up by decided actions. The ill-starred Biron had been already recalled, and Beysser appointed to succeed him. Combustibles of all kinds were ordered to be sent into La Vendée for burning the plantations, the underwood, and the broom. The forests were to be levelled, the crops cut down, the cattle seized, and the goods of the insurgents confiscated wholesale.

While the Convention was meditating this project of devastation, the royalist generals were looking eagerly in the direction of England, the refuge of so many royalists. What are they thinking of us and our struggle in England? was the feeling. Alas! England hardly

knew what was going on in La Vendée. One day early in August there came to Chatillon a strange little man, with an exceedingly sharp penetrating look, seeking an interview with the Vendéan generals. This was an envoy from England, carrying despatches from Pitt and Dundas as wadding in his pistols. His name was Tinteniac: he was a Breton emigrant, one of those men of whom so many extraordinary stories are told, who, by the joint force of a wild courage and an exhaustless ingenuity, contrived, during the heat of the war, to pass and repass through miles of hostile territory, carrying despatches which, if discovered, would have conducted them to the nearest gallows. Tinteniac produced his credentials. Can we wonder that a pang of anger was felt when, on opening them, it was found that they were addressed, not to D'Elbée, Lescure, Larochejaquelein, Stofflet, or any other general in the insurrection, but to a dead man-no other, in fact, than the barber Gaston, who had headed a local outbreak in the Marais in the month of March, and been killed a day or two after. Oh! it was heart-sickening. Here had they been resisting the Revolution for five months, and yet the statesman whose eyes were supposed to be ranging over Europe, was not so much as aware of the names that were daily bandied about by the French journals. No wonder that they now distrusted England. Nevertheless, an answer to the questions contained in the despatches was written out pressing for the landing of an English army on the coast of Bretagne, insisting particularly on the necessity of having a Bourbon prince at the head of it, promising 20,000 recruits from La Vendée alone, and assuring England that the landing of the army would rouse all Bretagne. With this answer Tinteniac departed.

The activity of the republican generals, stimulated by the recent orders of the Convention, did not allow the Vendée leaders to desist long from military operations. A battle became necessary whenever the Blues penetrated the Bocage; and this a strong force under Tuncq, one of Beysser's officers, was now doing. To repel this inroad, Charette, on the 12th of August, joined his forces to those of D'Elbée. A desperate battle took place at Lucon, in which the Vendéans suffered a terrible defeat; and this was but the beginning of disasters. All the servants of the Republic were thinking about nothing else than the best way of carrying out the exterminating edict of the Convention. Santerre himself, who, though nominally exerting himself in a military capacity, was, in reality, in safe lodgings at Saumur, came forward with a scheme peculiarly his own. He was for putting an end to the insurrection by carbonic acid gas. He recommended that the chemists should prepare some of their strongest gas-emitting substances; these were to be bottled up in tight leathern vessels, which were to be fired like shells into the doomed district, so that, falling on the ground, they might burst, and emit the subtle fluid to impregnate the

atmosphere, asphyxiate every living thing, and strew the fields with corpses. Possibly Santerre, though familiar with the effects of carbonic acid gas at the bottom of vats, had no distinct notion of chemical possibilities; at anyrate, his plan was not adopted, and the Republic fell back upon the ordinary instrumentality of fire and massacre.

The devoted Bocage was now surrounded by a formidable ring of republican forces, amounting in all to about 200,000 men, many of them raw recruits, but many of them also veteran soldiers; and the purpose was, to draw closer and closer round the whole insurgent population, until they should be collected like sheep within a pen, and then deliberately butchered. To frustrate this design, La Vendée was divided into four districts, presided over severally by Charette, Bonchamp, Lescure, and Larochejaquelein, each of whom employed himself in repelling the inroads of the enemy on his own frontier. Not a few bloody engagements took place in this way; and when the royalists were victorious, as was usually the case when they fought in the labyrinths of their own Bocage, they did not, as formerly, spare their prisoners, but killed them without mercy. All that had gone before seemed but a prelude to what was now going on. Everybody believed that the time had now come pointed out in the memorable prophecy of that holy man Grignon de Montfort, founder of the blessed societies of the Missionaries of St Laurent and the Daughters of Wisdom, who, more than fifty years ago, had, with his own hands, planted a stone cross in the earth, uttering these words: 'My brothers, God, to punish misdoers, shall one day stir up a terrible war in these quarters. Blood shall be spilt; men shall kill one another; and the whole land shall be troubled. When you see my cross covered with moss, you may know that these things are about to happen.' And, sure enough, was it not covered with moss now? Ah! the words of that holy and devout man have not come to nought.

The Vendéans, hemmed in on all sides, performed prodigies of valour. Santerre and Ronsin at one point, Duhoux at another, Mieskowski at another, Canclaux and Dubayet at another, and lastly, Kleber himself—the herculean and magnanimous Kleber, one of the ablest servants the Revolution ever had—Kleber at Torfou, with the brave Mayençais—all were defeated and beaten back. The end of September was spent by the peasants in rejoicing and thanksgiving. Still the antagonists were unequally matched, and the struggle could not last long. Charette, also, whose assistance had helped the insurgents in their successes, now left them to pursue some plan of his own on the coast, having quarrelled with the

generals.

The Convention at Paris now recalled General Beysser for being unsuccessful in the war, and with him Canclaux and Dubayet. These two officers were exceedingly popular with the army; and

their recall so offended the Mayençais, that they offered, for 400,000 livres paid down, and a guaranteed pay of seven sous a day per head, to desert the Republic, and join the royalists. The Superior Council, contrary to Abbé Bernier's wishes, rejected this offer; the scrupulous honesty of the Vendéans conceiving it to be a sacrilege to employ, for however good an end, the dishonesty of others. Hearing of the insubordination of the Mayençais, the Convention, on the 9th of October, issued an order for concentrating all the troops then serving in the west, in Normandy and Bretagne, as well as Anjou and Poitou, into one large army, to be styled the Army of the West, and commanded, 'not by ci-devant nobles like Canclaux

and Dubayet, but by Lechelle, a man of the people.'

Lechelle was not more capable than others; but he had able subordinates, the best of whom were Kleber and Westermann; and besides, Canclaux generously left him a plan of procedure. Acting on this plan, he caused two bodies of troops to march into the centre of the Bocage simultaneously by different routes. Advertised of the approach of one of these on the frontier committed to his care, Lescure, then at La Trenblaye, went out to meet it. Mounting a rising ground, he discovered the Blues almost at his feet. 'Forward!' he cried; but at that moment a ball struck him on the right eyebrow, coming out behind his ear, and gashing his head. It was his death-wound. While he was in the act of being carried off the field, his men rushed madly forward, and repulsed the enemy. But a more terrible encounter was at hand. The various bodies of republicans were now concentrated at Cholet, each having left behind it a track of desolation, as if it had scathed the earth where it marched. During the day, the air was filled with the smoke of burning villages; at night, fires blazed up along the horizon; the untended cattle were heard lowing wildly on the hills; and the croaking of the carrion birds, and the howling of the wolves, feasting on the corpses scattered about, made the scene more horrible. The rovalists gathered their dispersed forces, resolved to stake the issue upon one decisive battle; taking the precaution, however, of following Bonchamp's advice so far as to send the Prince de Talmont, with a small body of men, to keep open an avenue from Cholet into Bretagne, so that, in case of defeat, their shattered army might still have the means of reaching an asylum—a precaution, alas! which the event proved to have been but too necessary.

Long and desperate was the engagement between Kleber's forty-four thousand republican soldiers and the forty thousand Vendéans at Cholet. The carnage was great; and the issue was yet doubtful, when suddenly, in one part of the royalist army, there arose the panic-stricken cry: 'To the Loire! to the Loire!' In vain the generals galloped hither and thither, shouting till they were hoarse; it was night, and nothing could be distinguished. Flags, artillery, chiefs, horses, soldiers, women, priests, children, were all commingled

and swept along in an irretrievable indiscriminate confusion. In the mélée, Bonchamp and D'Elbée both fell, the one struck down, the other shot in the breast. They would have been left among the dead, but that they were recognised by a small body of men who had taken no part hitherto in the fight, but had come up in time to witness the flight, and make it somewhat less disastrous by interposing themselves between the fugitives and their pursuers. Brandishing his bloody sabre over his head, Larochejaquelein made an attempt to rush back, crying out: 'Let us die where we are!' but he was carried on by the river of fugitives, his voice drowned by cries of: 'To the Loire! to the Loire!' And on they impetuously went towards the Loire, a wild and intractable herd of human beings; governed by a blind impulse, they rushed towards the broad and tranquil river which separated their unhappy country from Brittany.

Overcome with fatigue, and arrested by darkness, the Vendéans halted at Beaupréau, where they remained during the night.

PASSAGE OF THE LOIRE.

We left the panic-stricken host of Vendéans halting for the night at Beaupréau, on its way towards the Loire. A terrible spectacle presented itself on the following morning—a continuous stream of a hundred thousand human beings, men, women, and children, with tattered garments and bleeding feet, pouring out of their desolated native land, and seeking from God and man's mercy some other asylum. Before them, beyond a broad river, was a strange country; behind them was a pursuing enemy. Three of their chiefs, too, were dying of their wounds, carried uneasily along in litters. It was not long since the heroic Cathelineau was taken away from them. and now all at once they were bereft of Lescure, Bonchamp, and D'Elbée. La Vendée had indeed proved itself too weak for the Revolution. For seven months the brave little district had, by its own unaided efforts, kept that gigantic force at bay: the blame of its not being able to do anything more, of its not being able to frustrate and crush the Revolution altogether, lay not with it, but with those whose duty it was to improve the opportunity which the struggle in La Vendée afforded them. La Vendée had done her utmost. Whatever fault there was, lay with those royalists who were nearest the centre of European affairs, and who did nothing.

A hundred thousand Vendéans, men, women, and children, were wending along towards the Loire. They arrived at St Florent, and prepared to cross the river opposite to Ancenis. In a paroxysm of revenge, they were going to massacre about five thousand republican prisoners they had brought along with them, when Bonchamp intered on the side of mercy; and when they would have respected nothing else, they respected this, the last wish of their dying general.

The men were liberated. On the 18th of October, the passage of the Loire was effected, and is thus described by Madame Lescure in her memoirs: 'The heights of St Florent form a kind of semicircular boundary to a vast level strand reaching to the Loire, which is very wide at this place. Eighty thousand people were crowded together in this valley; soldiers, women, children, the aged and the wounded. flying from immediate destruction. Behind them they perceived the smoke of burning villages. Nothing was heard but loud sobs, groans. and cries. In this confused crowd every one sought his relations, his friends, his protectors. They knew not what fate they should meet on the other side, yet hastened to it, as if beyond the stream they were to find an end to all their misfortunes. Twenty bad boats carried successively the fugitives who crowded into them; others tried to cross on horses; all spread out their arms, supplicating to be taken to the other side. At a distance on the opposite shore, another multitude, those who had crossed, were seen and heard fainter. In the middle was a small island crowded with people. Many of us compared this disorder, this despair, this terrible uncertainty of the future, this immense spectacle, this bewildered crowd, this valley, this stream which must be crossed, to the images of the last judgment.' They had almost all crossed, and relations who had been separated were seeking each other in the crowd on the safe side, when Merlin de Thionville, representative of the people, galloped in among those still waiting on the Vendée side, cutting the throats of women and children. A large number were thus butchered at the river side. This Merlin de Thionville appears to us to have been one of the most consummate scoundrels even of that age, when, in the troubling of the waters, so many latent scoundrels were stirred up from the bottom. In a letter addressed on the 19th of October to the Committee of Public Safety, after congratulating the Committee on the flight of the Vendéans, he adverts to the five thousand republican prisoners whom the fugitives had so magnanimously spared. Thionville is vexed at the circumstance, and calls it an unfortunate occurrence. He had taken great pains, he said, to represent the affair in its proper light, as some faint-hearted republicans were actually touched by it. 'It is best, therefore,' he says in conclusion, 'to cover with oblivion this unfortunate occurrence. Do not speak of it even to the Convention. The brigands have no time to write or make journals. The affair will be forgotten, like many things else.' The man who could write so-who could coolly suppress a fact creditable to an enemy, speculating on the chance that that enemy did not keep a journal-deserves to be singled out from among his brother liars, to go down to posterity as the blackest heart in the Revolution. Desirous of conveying his falsehood through a public document to the people, he wrote as follows to the Convention: 'At St Florent we rescued out of the hands of the enemy five thousand five hundred republican prisoners.

These unfortunate fellows threw themselves into the arms of their deliverers, bathing them with tears of joy and gratitude; and with a voice enfeebled by the sufferings of more than five months, the only words they could utter when they saw us were cries of "Vive la

République."'

Bonchamp died in the boat while they were ferrying him over; D'Elbée was missing, having disappeared in the confusion of the passage; Lescure was evidently dying. Who now should be the leader of the fugitives? Gathering the generals round his bed, Lescure proposed Larocheiaquelein. Shrinkingly and with sobs. the young soldier yielded to Lescure's representations, and accepted the terrible office which made him responsible for the lives and safety of all these wretched families, now without a home. The spirits of the poor Vendéans flickered faintly up again when their young general, not yet twenty-one, assumed the command; and a kind of hope, even when hope seemed impossible, beamed in their sorrowblanched and hunger-bitten faces, reciprocating to the glance of his eagle eye as he rode forth among them, proud in his bearing as in the day of battle. From that day there was a remarkable change in the demeanour of Henri. As if overborne by the sense of his new situation, all his wild gaiety, all his self-abandonment, all his impatience of delay or deliberation, forsook him; he became grave, serious, cautious, and foreseeing, like Lescure himself; and it was only when confronted with personal and instant danger that his old nature got the better of him, and he would dash into the fray, not as a commander-in-chief, who had to combine the movements of many masses, but as a brave hussar, who had no thought beyond the managing of his own sabre. Henri Larochejaquelein had become suddenly old.

La Vendée was now a desert covered with scathed and blackened patches. Merlin de Thionville was for calling it 'Le Département Vengé,' and recolonising it with poor labourers and Germans, who should get the land for the trouble of clearing away the hedges. It is probable that the execution of this plan was prevented only by the exertions of Charette, who, struck with remorse for having quitted the grand army, left the occupations in which he had been engaged on his own account, and kept La Vendée open by making it again

a fighting-ground.

Meanwhile, the expatriated Vendéans were moving through Bretagne (Brittany) like a creeping famine. They had to keep constantly on the march, so as not to afflict any one spot with too much of their presence. The hunger of an additional mass of 100,000 human beings is no slight visitation upon a province, not to speak of the numerous revolutionists who were pursuing them; but the people of Maine, and the Bretons too, shaggy and uncouth as they seemed, with their sheep and goat skin dresses, had human hearts in their breasts, and strove to alleviate the woes and supply the

wants of their royalist Vendéan brothers. Nor did the Vendéans. on their part, receive this kindness thanklessly, as if they had a right to live by impoverishing their benefactors; so long as a farthing or a farthing's worth remained, it was freely given in exchange for the necessaries of life. A soldier caught pillaging was shot by Larochejaquelein's orders. And at last, when the whole treasury was exhausted, the military council, at the instance of Larochejaquelein and the Abbé Bernier, resorted to the only means of compensation they had, that of promising future payment. On the 1st of November, it was resolved to issue notes in the king's name, to the amount of 900,000 livres, payable at the restoration of peace, and bearing an interest of $4\frac{1}{2}$ per cent. To be sure, in a commercial point of view, the 4½ per cent. was small interest, considering the risk; and being paid in such notes was little better than giving the goods for nothing. Still, the mere thought of resorting to such a form, in such circumstances, shewed a people who had been accustomed to be honest, and who liked any device that could banish the degraded feeling of being beggars. There was a remarkable difference in this respect between the Vendéans and the republicans. Pillage was legal in the armies of the Republic. One day, not long after the period at which we have arrived, a body of republicans was reviewed before Boursault, a member of Convention. The poor fellows were in very ragged regimentals, and had hardly a shoe among them. Boursault, looking round on the crowd of peaceable well-shod citizens who had come to see the review, and were looking on with infinite interest, pointed to the bare feet of the soldiers, and asked the citizens if they had the heart to let slip such a fine opportunity of laying their boots and their shoes on the altar of their country. The citizens felt a consciousness that, if they parted not with their shoes peacefully and good-humouredly, they would be taken by force. So, with a good grace, they sat down on the grass and took off their shoes, the soldiers fitting themselves as well as they could with pairs.

From Varades, their first halting-place, the Vendée pilgrims, reinforced by a body of Breton royalists, set out for Laval, reaching it on the 20th of October. At this time they were saddened by the news of the queen's death, and enraged by discovering that the great Bishop of Agra was no Bishop of Agra at all, but an impostor. On the night of the 24th, when within a league of Laval, they fell in with a body of Blues under Westermann, a division of the republican army which had crossed the Loire at Angers, and pursued a route northward through Anjou and Maine; another division under Lechelle having crossed at Nantes, much farther west, to penetrate Bretagne; the intention of this arrangement being to come up with the fugitives, whichever direction they might take, and, if possible, shut them up between two marching armies. Westermann, however, was beaten, and retreated to Château-Gontier to wait for Lechelle,

intending to join forces with him, and attack the Vendéans again on the morrow. Larochejaquelein spent the night in making his arrangements and encouraging the soldiers, bidding them remember that the safety of their wives and children depended on their winning this battle, and recalling to their minds the horrors of that disastrous retreat from Cholet, of which all their woes and sufferings since were but the consequence and continuation. A long dormant enthusiasm reanimated the Vendéans; even the wounded Lescure had himself planted at a window propped up by pillows, to see the battle. When Lechelle came up, with the whole army of the west, the fight began. The bravery and ability of Marceau, Kleber, and Westermann were insufficient to counteract the blundering stupidity of the commander-in-chief, co-operating so usefully with the skill of Larochejaquelein's arrangements, and the thunder of Stofflet's cannon. The Blues were utterly defeated; and the royalists, in their greatest extremity, had gained perhaps the greatest battle in the whole course of the insurrection. The republican authorities are divided as to whether the loss of the battle of Laval was owing more to Lechelle's military incapacity, or to Larochejaquelein's military genius. On the one hand, it was Lechelle's last battle; superseded by the Convention, he retired to Nantes, where he died soon after in the arms of Carrier. On the other hand, Larochejaquelein's share of the merit is testified by the men most capable of judging. 'This single battle,' wrote General Jomini several years afterwards, 'places that young man high in the opinion of all military critics.' Again, the magnanimous Kleber, in his letter of the 28th of October, announcing the battle, writes thus: 'We had opposed to us the terrible native impetuosity of the Vendéans, and the power communicated to them by the genius of one young man. This young man, who is called Henri de Larochejaquelein, and who was made their commanderin-chief after the passage of the Loire, has bravely earned his spurs. He has exhibited in this unfortunate battle a military science, and an accuracy of manœuvre, which we have missed among the brigands since Torfou. It is to his foresight and coolness that the Republic owes a defeat which has discouraged our troops.'

The poor Vendéans had doubtless gained a signal victory, but they had a whole nation to conquer. This new victory, therefore, like every other, was little better than a useless slaughter. Within a fortnight of the defeat at Laval, the Republic again had an efficient army ready to march after the fugitives. The infamous Carrier of Nantes, indeed, would have saved them the trouble. He proposed a plan for exterminating the fugitives, not unlike that of Santerre. 'Poison the springs,' said he, writing to Kleber on the 9th of November; 'poison bread, and toss it about where it may tempt the voracity of the starving wretches. You are killing the brigands with bayonet-thrusts. Kill them with doses of arsenic; it will be neater and less expensive.' 'If Carrier were here,' said Kleber when

he read the letter, 'I would pass my sword through him, the brute.' Some really were for giving Carrier's proposal a hearing; but Kleber was inexorable; he stood out for the sword against the arsenic, and

went on organising his army.

The plan which Larochejaquelein proposed to adopt after the battle of Laval, and one which, bold as it was, really appears to have been the single chance the Vendéans had, was instantly to march back through Maine and Anjou by the way they had come, pushing aside the wreck of the republican army, preventing it from reorganising on Kleber's plan, and ultimately re-entering the well-known labyrinths of their own Bocage. This plan was overruled. A military council was held at Laval, which, besides taking steps for procuring supplies, deliberated what should be their next route. Possibly, Larochejaquelein's plan might now have been adopted, but the reassembling of the republican army had made it too late. There remained two alternatives—a march westward into Bretagne, or northward into Normandy. Strong reasons were stated in favour of the former; but, finally, it was resolved to march north-west by the shortest route to the sea-coast.

On the 2d of November, the Vendéans left Laval, and took their way by Mayenne and Ernée. Lescure died on the way, and was buried, his wife never knew where. At Fougères, the officers were again waited upon by envoys from the British government, with despatches, encouraging the Vendéans to persevere, promising assistance, and indicating Granville in Normandy as a port at which an English fleet might conveniently land. The council wrote a grateful reply, pressing for speedy relief, and repeating their urgent request that a Bourbon prince might come over to head the army. It was also agreed with the envoys what signal should announce to the English fleet the taking of Granville by the On their way to Granville, the Vendéans marched to Vendéans. Dol on the 9th, to Pontorson on the 10th, and thence to Avranches. But so great of late had been the physical suffering among them, that murmurings arose which no representations could suppress, and they demanded to be led back to the Bocage. Three or four hundred did actually set out to go home; but they fell into the hands of the Blues, and their bodies were afterwards found bleaching on the road. Arrived at Avranches, the women, the children, and the baggage were left there with a body of soldiers to guard them, and at the same time to keep open a retreat—the mass of the army, amounting to about 30,000 men, marching on to lay siege to Granville, a town on a rocky height overlooking the British Channel. The attack began on the night of the 14th; it lasted that night, all next day, and even the night following. They fought on, looking anxiously for the English flag that was to appear on the horizon and bring them relief; but though the firing was heard by the English garrison at Jersey, no relief came; and after fighting thirty-six hours,

their ammunition gone, their bodies fatigued, their spirits fainting, the Vendéans, spite of entreaties and exhortations, would hold out no longer. Breaking up into bodies, they left the sea-coast as they best could, muttering deep imprecations against Pitt, Dundas, and

the whole English nation.

Hurrah now for home !- back, back to the Bocage! Their scanty blood boiled at the name; and as they turned their faces to the south, they felt as if their strength were renewed by the breeze blowing from the woods of La Vendée, and fanning their sun-tanned temples. No matter that the republican army of Marceau and Kleber lay between; with the Bocage on the other side, they would break their way through walls of iron. Rejoined at Avranches by the women and children they had left there, they came back to Dol, where, on the 21st of November, they fought one of their bloodiest battles, defeating Kleber, Westermann, and Marceau together-the women themselves rushing about like furies in the battle, handling muskets, sending fugitives back to the fight, and shricking: 'Forward! forward!' Though, after this victory, many of the Vendéans detached themselves from the main body, in order to shift for themselves, still the great mass kept together under Stofflet and Larochejaquelein, pressing southward, and pursued by the republican army, through which they had just cut their way. It was proposed even now to try the effect of a march westward into Bretagne, to besiege Rennes, and stir up a general rising of the Bretons; but again the murmuring arose: 'Home, home!' So southward still they went. The terrible Loire must be crossed ere they can plant their feet in La Vendée. They might cross it either at Angers or at Saumur. They rush to Angers; in vain—they cannot cross there. O that horrid river! Foiled, they fall back like an ebbing wave, only to rush forward again with greater violence. At no point can they effect a passage. Hither and thither they wander in despair. from La Flèche to Mans, from Mans to La Flèche again, Westermann and his Blues approaching them every hour. The rumour is spread that the authorities have resolved to allow the fugitives to disperse. and travel safely without passports. Many believe it, and are sacrificed. Thinned by these desertions, and utterly broken in body and spirit, the Vendéan army was defeated and shattered to pieces at Mans—shattered to pieces, to be massacred more easily. a scene of horror for miles round! Here a heap of dead bodies yet warm, there a band of republican soldiers shooting women and children to build up another heap; and Westermann everywhere superintending the butchery. On the 14th of December, Larochejaquelein and the wretched remains of his army drew back to Laval. Eighteen thousand had perished in that little district north of the Loire. O that terrible river!

Still they kept bravely together. On the 16th, they made a rush upon Ancenis, the very point at which they had crossed on their

leaving La Vendée two months before. Westermann was but a few hours behind them. All the means of crossing they had was one small boat they had taken from the pond of a château, and brought along with them, and another flat-bottomed one they found at the water's edge. By Larochejaquelein's orders, all hands were employed making rafts. Four large boats also were seen fastened with ropes at the other side of the river, loaded with hay. Oh, if they had but these boats! But who could risk carrying them off under the very eyes of the republican garrison of St Florent? Henri volunteered the trial; Stofflet and another brave man leaped into the little boat along with him; and eighteen soldiers accompanied them in the other. They had reached the other side, and were making away with the boats, when they were attacked, overpowered, and dispersed. Thus Larochejaquelein and Stofflet were separated from the Vendéan army.

Larochejaquelein and Stofflet were now, therefore, on one side of the river fleeing for their lives; the mass of the Vendéan army was on the other, without a general, without a boat, and with the merciless dragoons of Westermann behind it. This separation of Larochejaquelein and Stofflet from the miserable body of their followers, necessarily breaks down the brief remainder of our story into two narratives. What, in the first place, was the fate of the poor army, the last remains of the hundred thousand unfortunates who, two months before, had been driven from the Bocage? And, in the second place, what became of the two leaders, so strangely detached from their followers?

CONCLUSION OF THE WAR-FATE OF LAROCHEJAQUELEIN.

The fate of the residue of the Vendéan army is sad to tell. Reduced now by massacre and desertion to less than twenty thousand, they stood almost stupefied with terror, gazing at the point of the opposite bank where the fatal boats were yet lying, and where their two generals had disappeared from their view. Sometimes they wished, vainly enough, that they were on the other side too; sometimes they indulged a dreamy hope that their generals would reappear, bringing deliverance. A few of their number kept working at the rafts. Their labour was in vain. A gun-boat, lying off Ancenis, fired and sunk them. At that moment, Westermann and his men were battering at the gates and throwing shells into the town. 'Disperse, disperse; every man for himself!' was now the cry. They did so. Some, confiding too easily in a rumour which the republicans had industriously spread, that an amnesty had been granted to all who chose to avail themselves of it, made their way with difficulty to Nantes, where almost all of them became Carrier's victims; some meditating a similar flight, hid themselves in the meantime in the surrounding fields and farm-houses, where they were

afterwards sought out and shot; and a few managed, by watching their time, to cross the fatal river, and reach La Vendée or some more distant part of France. Notwithstanding these desertions, a body of between eight and ten thousand still remained together, among whom were some of the most distinguished officers, such as Talmont, Fleuriot, Donnissan, Forestier, and Marigny. Adopting almost the only route open to them, they left Ancenis, and proceeded to Niort, meeting but little opposition on the way. During this journey, Madame Lescure was obliged to part with her child, intrusting her to the care of a peasant, who was to take charge of her until reclaimed; but the child died, and was never seen more by her distracted mother. At Niort, Fleuriot was appointed commander, a choice which so offended the Prince de Talmont, as seeming to imply a doubt of his fidelity, that he quitted the army, and retired to Laval—a step adopted nowise for the purpose of personal security, for he was shortly afterwards apprehended, and shot in the court of his own château.

From Niort the wreck of the army marched to Blain, where they remained, making good their position against small detachments of the republicans, until advised of the approach of the main force under Marceau and Kleber, who had now joined Westermann, when they took their way to Savenay, closely pursued. A strange, ragged, woe-begone, motley crowd they were. Their clothes having been long ere now worn to shreds in the course of their weary journeyings, they had laid hold of everything that could serve as a covering or a protection from the weather. One man had on two petticoats, tied, one round his neck, the other round his waist; another wore a lawyer's gown, which he had picked up somewhere, with a flannel nightcap on his head; a third had a Turkish turban and dress, which he had taken from a playhouse at La Flèche. Madame Lescure rode on a horse with a dragoon's saddle, and wore a purple hood, an old blanket, and a large piece of blue cloth tied round her neck with twine. The motley crowd reached Savenay, and hastily shut themselves in. This, they knew, and so did the republicans, must be their last place of retreat. Situated between two rivers, swollen with the winter rains, with the sea before them on the west, and the republicans approaching them from the east, they were shut up in a circle, one half of which was fire, and the other water. Hardly had the fugitives shut themselves into Savenay, when the republicans came up with them, and the fighting began. For a while the attack was confined to insignificant skirmishing, but it was evident that an annihilating blow was in preparation.

It was about nine o'clock in the evening when Madame Lescure, who had lain down for an hour or two, was awakened by a bustle, and told to get up, for a horse was ready to convey her away. Scarcely knowing what they were going to do with her, she was about to dismount from the horse on which they had already placed

her, when Marigny, a man whose conduct at this crisis has earned for him an illustrious reputation among the Vendéans, came up, and taking her horse's bridle, led her a little away from the rest, and whispered to her that she must try to escape. He told her that all was over; that they could not stand the approaching attack of the morning; that in twelve hours they would be all dead; and that her only chance of escape was in fleeing immediately, and trusting to the darkness. Unable to say more, Marigny turned hurriedly away. Hastening to her mother and M. Donnissan, Madame Lescure repeated Marigny's words. It was instantly arranged by M. Donnissan that she and her mother should disguise themselves as peasants, and guit the town under the care of the Abbé Iagault, and a townsman as their guide. At midnight, the general, who had resolved to remain with the army to the last, bade farewell to his wife and daughter. 'Never leave your poor mother,' were his last words to Madame Lescure at parting. He stood in the square of Savenay, looking after them through the darkness. They never saw him again. At nine o'clock in the morning, a cold heavy rain falling, the Vendéans, under Fleuriot, Donnissan, and Marigny, precipitated themselves upon the republicans. Their aim was, if possible, to reach the forest of Gavre, where they might take refuge in the meantime, and plan some means of crossing the Loire. This Fleuriot, with a small body, effected at first. A large number, including many officers, were cut to pieces. Three times did the brave Marigny, holding the standard which, in her happier hours, Madame Lescure had embroidered for the Vendéan army, dash himself against the Blues; and as often was he repulsed. 'Women,' he cried at last, 'all is lost; save yourselves!' To give them time to do so, he stationed two cannon on the road along which they must retreat, and halting with a few brave men between the enemy and the fugitives, fought an hour longer. They then fled for their lives, dispersing themselves like the rest through the forest country, there to await through the miserable winter what small chance of ultimate escape the relentless vigilance of the authorities might afford them.

For months after, miserable wretches were rooted out in twos and threes from their places of concealment, to perish by the hands of the republican executioner. Donnissan was shot attempting a new rising. The pretended Bishop of Agra died on the scaffold: an impostor to gratify his vanity, there was nothing else bad about him. The Abbé Bernier lived long enough to lose his reputation. And to conclude the catalogue, we may mention that D'Elbée, who, it will be remembered, disappeared at the time of the first crossing of the Loire, mortally wounded, made his way in that condition to the seacoast, the scene of Charette's operations, where, falling into the hands of the Blues three months after, he was placed in an arm-chair

and shot, though dying of his old wound.

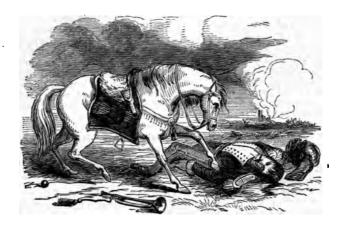
The adventures of Madame Lescure after her departure from

Savenay were of the most distressing kind. Pursued as a fugitive with her mother and attendants, she was delivered of twin daughters in the cottage of a peasant, humanely opened for her reception. The infants afterwards died, and Madame Lescure was able to make her escape into Spain. After a period of exile, she was permitted to return to France, and to assume possession of her husband's property, which had been fortunately spared from confiscation. Her mother was now anxious that she should marry again—a proposal to which she long felt very repugnant. 'I was unwilling,' she says, 'to lose a name so dear to me, and so glorious. I could not bear renouncing all remembrance of La Vendée, by thus entering on a new existence. I therefore resisted my mother's solicitations, till I saw in Poitou M. Louis de Larochejaquelein, the brother of Henri. It seemed to me that, by marrying him, I attached myself more to La Vendée, and that, by uniting two such names, I did not offend against him whom I loved so much.' She married M. Louis de Larochejaquelein in March 1802. From that period, her life ran somewhat more smoothly; but her second husband was killed at the head of a body of Vendéan loyalists in June 1815, a few days before the battle of Waterloo.

It remains now to tell what became of Stofflet and Henri Larocheiaquelein. Separated from the army at the Loire in the manner we have already described, the two generals went hither and thither through the desolated Bocage, trying to raise men to renew the struggle. Charette, who, since the evacuation of the district by the Vendéans, had taken up his station in it, was then at Maulévrier. Here Larochejaquelein had an interview with him. Charette, who, with all his patriotism, had much personal ambition, and who saw in Henri's return the prospect of a divided or contested command, received him coldly; and unfortunately for the cause they had both at heart, the two parted in anger, Charette to pursue his plans in Bas-Poitou, and Larochejaquelein to raise a force of his own. He and Stofflet kept together, and, by a series of small successful engagements, they began to make their presence felt by the republicans. In March 1794, at the head of a small band of peasants, they attacked the garrison of the village of Nouaillé. After the victory, Henri saw the peasants preparing to shoot two republican grenadiers. 'Stop,' he cried to the peasants; 'I want to speak with them.' Advancing to the grenadiers, he called out: 'Surrender, and you shall have your lives.' At that instant, some one pronounced his name. One of the grenadiers turned, presented his musket, and The ball struck Henri on the forehead, and he fell to the ground dead. Thus, on the 4th of March 1794, at the age of twenty-one, died Henri de Larochejaquelein, the hero of La Vendée. He and his murderer were thrown into one grave. As the Romans treated Hannibal, his enemies did him the honour of disinterring his body, to have ocular demonstration that he was really dead.

Though the story of the subsequent proceedings is considerably less spirit-stirring than the narrative of the great war of 1793, still the death of Larochejaquelein did not by any means extinguish the royalist enthusiasm of the Vendéans, or paralyse their activity. On the contrary, the struggle was protracted for several years; Charette acting as the insurgent commander on the coast, Stofflet in the interior, and the two occasionally acting in concert. Besides what they did, an independent insurrection, called the War of the Chouanerie, was going on north of the Loire. The Convention began to see that no amount of fighting, burning, or massacre would ever eradicate the inveterate royalist feeling of the population of the north-west; and probably conscious, at the same time, that the Revolution was now strong enough to be able to afford to be generous. they resolved to offer terms to the Vendéans; by which, on acknowledging the authority of the Republic, they were to enjoy the unmolested exercise of their religion, have freedom from military service, and receive indemnification for their losses. Though the terms offered were accepted, the habit of insurrection was too strong to make the long continuance of tranquillity possible. Accordingly, it required the judgment and moderation, as well as the great military capacity, of General Hoche to reduce the west of France to anything like order. This was in 1795. Hoche's exertions were made complete by the almost simultaneous deaths of the two surviving spirits of the insurrection, Charette and Stofflet. Stofflet was taken, tried by military commission, and shot at Angers in February 1796. After wandering about in concealment for some time, Charette was taken on the 23d of March, and shot at Nantes three days after. With the death of these leaders the war in La Vendée terminated; and peace and order were gradually restored to this long-distracted country. 32







HE horse is universally acknowledged to be one of the noblest members of the animal kingdom. Possessing the finest symmetry, and unencumbered by those external appendages which characterise many of the larger quadrupeds, his frame is a perfect model of elegance and con-

centrated energy. Highly sensitive, yet exceedingly tractable, proud, yet persevering, naturally of a roaming disposition, yet readily accommodating himself to domestic conditions, he has been one of the most valuable aids to human civilisation—associating with man in all phases of his progress from the temporary tent to the permanent city.

By his physical structure, the horse is fitted for dry open plains that yield a short sweet herbage. His hoof is not adapted to the swamp; and though he may occasionally be seen browsing on tender shoots, yet he could subsist neither in the jungle nor in the forest. His lips and teeth, however, are admirably formed for cropping the shortest grass, and thus he luxuriates where many other herbivorous animals would starve, provided he be supplied with water, of which he is at all times a liberal drinker. He cannot crush his food like the hippopotamus, nor does he ruminate like the ox; but he grinds the herbage with a peculiar lateral motion of the jaw, which looks not unlike the action of a millstone. Delighting in the river-pairs

and open glade, the savannahs of America, the steppes of Asia, and the plains of Europe, must be regarded as his head-quarters in a wild state. There is doubt expressed, however, as to the original locality of the horse. The wild herds of America are looked upon as the descendants of Spanish breeds imported by the first conquerors of that continent: those of the Ukraine, in Europe, are said to be the progeny of Russian horses abandoned after the siege of Azof in 1696; and even those of Tartary are regarded as coming from a more southern Naturalists therefore look to the countries bordering on Egypt as in all likelihood the primitive place of residence of this noble animal; and there is no doubt that the Arabian breed, when perfectly pure, presents the finest specimen of a horse in symmetry, docility, and courage. Regarding the horse as of Asiatic origin, we now find him associated with man in almost every region of the habitable globe. Like the dog, ox, sheep, and a few others of the brute creation, he seems capable of accommodating himself to very different conditions. and assumes a shaggy coat or a sleek skin, a size little inferior to that of the elephant, or not larger than that of an English mastiff, just as circumstances of climate and food require.*

In a state of nature, the horse loves to herd with his fellows, and droves of from four to five hundred, or even double that number, are not unfrequently seen, if the range be wide and fertile. The members of these vast droves are inoffensive in their habits, and when not startled or hunted, are rather playful and frolicsome; now scouring the plain in groups for mere amusement, now suddenly stopping, pawing the soil, then snorting, and off straight as an arrow, or wheeling in circles—making the ground shake with their wild merriment. It is impossible to conceive a more animated picture than a group of wild horses at play. Their fine figures are thrown into a thousand attitudes; and as they rear, curvet, dilate the nostril, paw in quivering nervousness to begin the race, or speed away with erect mane and flowing tail, they present forms of life and energy which the painter may strive in vain to imitate. They seldom shift their stations, unless compelled by failure of pasture or water; and thus they acquire a boldness and confidence in their haunts which it is rather unsafe to disturb. They never attack other animals, however, but always act

^{*}In ordinary systems of zoology, the horse is classed with the Pachyderms, or thick-skinned animals, as the elephant, tapir, hog, hippopotamus, and rhinoceros. Differing from the rest of the class in many respects, he has been taken as the representative of a distinct family known by the name of Equidae (equiva, horse), which embraces the horse, ass, zebra, quagga, onagga, and dæegguetai. All these animals have solid hoofs, are destitute of horns, have moderately-sized ears, are less or more furnished with manes, and have their tails either partially or entirely covered with long hair. The family may, with little impropriety, be divided into two sections—the one comprehending the horse and its varieties, and the other the ass, zebra, and remaining members. In the former, the tail is adorned with long flowing hair, the mane is also long and flowing, and the fetlocks are bushy; the latter have the tail only tipped with long hair, the mane erect, and the legs smooth and naked. The colours of the horse have a tendency to dapple—that is, to arrange themselves in rounded spots on a common ground; in the ass, zebra, and other genera, the colours are arranged in stripes more or less parallel.

upon the defensive. Having pastured, they retire either to the confines of the forest, or to some elevated portion of the plain, and recline on the sward, or hang listlessly on their legs for hours together. One or more of their number are always awake to keep watch while the rest are asleep, and to warn them of approaching danger, which is done by snorting loudly, or neighing. Upon this signal the whole troop start to their feet, and either reconnoitre the enemy or fly off with the swiftness of the wind, followed by the sentinel and by the older stallions. Byron has happily described the manners of a herd surprised by the arrival of Mazeppa and his fainting charger on their pastures:

'They stop—they start—they snuff the air, Gallop a moment here and there, Approach, retire, wheel round and round, Then plunging back with sudden bound, Headed by one black mighty steed, Who seemed the patriarch of his breed, Without a single speck or hair Of white upon his shaggy hide; They snort—they foam—neigh—swerve aside, And backward to the forest fly, By instinct, from a human eye.'

They are seldom to be taken by surprise; but if attacked, the assailant seldom comes off victorious, for the whole troop unite in defence of their comrades, and either tear him to pieces with their teeth, or kick him to death.

There is a remarkable difference in the dispositions of the Asiatic and South American wild horses. Those of the former continent can never be properly tamed, unless trained very young, but frequently break out into violent fits of rage in after-life, exhibiting every mark of natural wildness; while those of America can be brought to perfect obedience, and even rendered somewhat docile, within a few weeks, nay, sometimes days. It would be difficult to account for this opposition of temper, unless we can suppose that it is influenced by climate, or rather the transmission of domesticated peculiarities from the original Spanish stock.

CATCHING THE WILD HORSE.

As in South America we have the most numerous herds, and the most extensive plains for their pasture, so it is there that the catching and subduing of the wild horse presents one of the most daring and exciting engagements. If an additional horse is wanted, a wild one is either hunted down with the assistance of a trained animal and the lasso, or a herd are driven into a corral (a space enclosed with rough posts), and one selected from the number. The latter mode is spiritedly described by Miers, whose account we transcribe, premising that

a lasso is a strong plaited thong, about forty feet in length, rendered supple by grease, and having a noose at the end: 'The corral was quite full of horses, most of which were young ones about two or three years old. The chief guacho (native inhabitants of the plains are called peons or guachos), mounted on a strong steady animal, rode into the enclosure, and threw his lasso over the neck of a young horse. and dragged him to the gate. For some time he was very unwilling to leave his comrades, but the moment he was forced out of the corral, his first idea was to gallop off; however, a timely jerk of the lasso checked him in the most effectual way. The peons now ran after him on foot, and threw a lasso over his fore-legs, just above the fetlock, and, twitching it, they pulled his legs from under him so suddenly, that I really thought the fall he had got had killed him. In an instant a guacho was seated on his head, and with his long knife cut off the whole of the mane, while another cut the hair from the end of his tail. This they told me was a mark that the horse had once been mounted. They then put a piece of hide into his mouth, to serve for a bit, and a strong hide halter on his head. The guacho who was to mount arranged his spurs, which were unusually long and sharp; and while two men held the horse by the ears, he put on the saddle, which he girthed extremely tight. He then caught hold of the animal's ear, and in an instant vaulted into the saddle, upon which the men who held the halter threw the end to the rider, and from that moment no one seemed to take any further notice of him. The horse instantly began to jump in a manner which made it very difficult for the rider to keep his seat, and quite different from the kick or plunge of our English steed: however, the guacho's spurs soon set him going, and off he galloped, doing everything in his power to throw his rider.

'Another horse was immediately brought from the corral, and so quick was the operation, that twelve guachos were mounted in a space which I think hardly exceeded an hour. It was wonderful to see the different manner in which different horses behaved. Some would actually scream while the guachos were girtling the saddle upon their backs; some would instantly lie down and roll upon it; while some would stand without being held, their legs stiff and in unnatural positions, their necks half bent towards their tails, and looking vicious and obstinate; and I could not help thinking that I would not have mounted one of those for any reward that could be offered

me, for they were invariably the most difficult to subdue.

It was now curious to look around and see the guachos on the horizon in different directions, trying to bring their horses back to the corral, which is the most difficult part of their work; for the poor creatures had been so scared there, that they were unwilling to return to the place. It was amusing to see the antics of the horses; they were jumping and dancing in various ways, while the right arm of the guachos was seen flogging them. At last they brought the horses back, apparently subdued and broken in. The saddles and

bridles were taken off, and the animals trotted towards the corral,

neighing to one another.'

To hunt down the horse in the open plain requires still greater address and greater strength of arm. According to Captain Hall, the guacho first mounts a steed which has been accustomed to the sport, and gallops him over the plain in the direction of the wild herd, and, circling round, endeavours to get close to such a one as he thinks will answer his purpose. As soon as he has approached sufficiently near, the lasso is thrown round the two hind-legs, and as the guacho rides a little on one side, the jerk pulls the entangled horse's feet laterally, so as to throw him on his side, without endangering his knees or his face. Before the horse can recover the shock, the hunter dismounts, and, snatching his poncho or cloak from his shoulders, wraps it round the prostrate animal's head. He then forces into his mouth one of the powerful bridles of the country, straps a saddle on his back, and, bestriding him, removes the poncho, upon which the astonished horse springs on his legs, and endeavours by a thousand vain efforts to disencumber himself of his new master, who sits composedly on his back, and, by a discipline which never fails, reduces the animal to such complete obedience, that he is soon trained to lend his whole speed and strength to the capture of his companions.

DOMESTICATION.

The subduing of wild specimens in America, the Ukraine, Tartary, and other regions, must be regarded as merely supplementary to that domestication which the horse has undergone from the remotest antiquity. A wild adult may be subjugated, but can never be thoroughly trained; even the foal of a wild mother, though taught with the greatest care from the day of its birth, is found to be inferior to domestic progeny in point of steadiness and intelligence. Parents, it would seem, transmit to their offspring mental susceptibility as well as corporeal symmetry; and thus, to form a just estimate of equine qualities, we must look to the domesticated breeds of civilised nations. At what period the horse was first subjected to the purposes of man, we have no authentic record. He is mentioned by the oldest writers, and it is probable that his domestication was nearly coeval with the earliest state of society. Trimmed and decorated chargers appear on Egyptian monuments more than four thousand years old; and on sculptures equally if not more ancient, along the banks of the Euphrates. One of the oldest books of Scripture . contains the most powerful description of the war-horse; Joseph gave the Egyptians bread in exchange for horses; and the people of Israel are said to have gone out under Joshua against hosts armed with 'horses and chariots very many.' At a later date, Solomon is said to have obtained horses 'out of Egypt, and out of all lands,' and to have had 'four thousand stalls for horses and chariots, and twelve

thousand horsemen.' Thus we find that in the plains of the Euphrates, Nile, and Jordan, the horse was early the associate of man, bearing him with rapidity from place to place, and aiding in the carnage and tumult of battle. He does not appear, however, to have been employed in the more useful arts of agriculture and commerce; these supposed drudgeries being imposed on the more patient ox, ass, and camel. Even in refined Greece and Rome, he was merely yoked to the war-chariot, placed under the saddle of the soldier, or trained for the race-course.

As civilisation spread westward over Europe, the demands upon the strength and endurance of the horse were multiplied, and in time he was called upon to lend his shoulder indiscriminately to the carriage and wagon, to the mill, plough, and other implements of husbandry. It is in this servant-of-all-work capacity that we must now regard him; and certainly a more docile, steady, and willing assistant it would be impossible to find. But it is evident that the ponderous shoulder and firm step necessary for the wagon would not be exactly the thing for the mail-coach; nor would the slow and steady draught, so valuable in the plough, be any recommendation to the hunter or roadster. For these varied purposes men have selected different stocks, which either exist naturally, or have been produced by a long-continued and careful system of breeding. In a state of nature, the horse assumes various qualities in point of symmetry, size, strength, and fleetness, according to the conditions of soil, food, and climate which he enjoys. It is thus that we have the Arabian, Tartar, Ukraine, Shetland, and other stocks, each differing so widely from the others, that the merest novice could not possibly confound them. Besides these primitive stocks, a thousand breeds, as they are called, have been produced by domestication, so that at the present time it would require volumes even for their enumeration. In our own country, for example, we have such breeds as the Flanders, Norman, Cleveland, Suffolk, Galloway, Clydesdale, and Shetland; and of these, numerous varieties, as may be required for the turf, the road, the cart, or the carriage. All this exhibits the wonderful ductility of the horse, and proves how admirably he is adapted to be the companion and assistant of man, as the latter spreads himself over the tenantable regions of the globe. It is to the character of the horse thus domesticated that we intend to devote the rest of this sheet; to his intellectual and moral, rather than to his physical qualities; to those traits of spirit and daring, of aptitude, prudence, memory, and affection, with which his history abounds.

COURAGE.

Courage and unshrinking firmness have ever been attributes of the horse. The magnificent description given in the book of Job, must be familiar to every one: 'Hast thou given the horse

strength? hast thou clothed his neck with thunder? canst thou make him afraid as a grasshopper? the glory of his nostrils is terrible. He paweth in the valley, and rejoiceth in his strength: he goeth on to meet the armed men. He mocketh at fear, and is not affrighted; neither turneth he back from the sword. The quiver rattleth against him, the glittering spear and the shield. swalloweth the ground with fierceness and rage: neither believeth he that it is the sound of the trumpet. He saith among the trumpets, Ha! ha! and he smelleth the battle afar off, the thunder of the captains, and the shouting.' It is asserted that horses with a broad after-head, and the ears far asunder, are naturally bolder than those whose head is narrow above the forelock. This assertion is in all probability correct, for there is no reason why cerebral development should not influence the character of a horse as well as that of a man; but much, too, depends upon judicious training. says Colonel Smith, habituated to war, will drop their head, pick up grass in the midst of fire, smoke, and the roar of cannon; others never entirely cast off their natural timidity. We have witnessed them groaning, or endeavouring to lie down when they found escape impossible, at the fearful sound of shot, shrapnell-shells, and rockets; and it was painful to witness their look of terror in battle, and to hear their groans upon being wounded. Yet many of the terrified animals, when let loose at a charge, dash forward in a kind of desperation that makes it difficult to hold them in hand; and we recollect, at a charge in 1794—when the light-dragoon horse was larger than at present, and the French were wretchedly mounted—a party of British bursting through a hostile squadron as they would have passed through a fence of rushes.

The horse, though naturally afraid of the lion, tiger, and other feline animals, has often sufficient confidence in a firm rider and his own courage to overcome this timidity, and to join in the attack. This was conspicuously evinced in the case of an Arab possessed by the late Sir Robert Gillespie, and noticed in the Naturalists' Library. Sir Robert being present on the race-course of Calcutta during one of the great Hindu festivals, when many thousands are assembled to witness all kinds of shows, was suddenly alarmed by the shrieks and commotion of the crowd. On being informed that a tiger had escaped from his keepers, he immediately called for his horse, and grasping a boar-spear from one of the bystanders, rode to attack this formidable enemy. The tiger, probably, was amazed at finding himself in the middle of such a number of shricking beings, flying from him in all directions; but the moment he perceived Sir Robert, he crouched in the attitude of preparing to spring at him, and that instant the gallant soldier passed his horse in a leap over the tiger's back, and struck the spear through his spine. Here, instead of swerving, the noble animal went right over his formidable enemy with a firmness that enabled the rider to use his lance with precision.

This steed was a small gray, and was afterwards sent home as a

present to the prince-regent.

M. Arnauld, in his History of Animals, relates the following incident of ferocious courage in a mule: This animal belonged to a gentleman in Florence, and became so vicious and refractory, that he not only refused to submit to any kind of labour, but actually attacked with his heels and teeth those who attempted to compel him. Wearied with such conduct, his master resolved to make away with him, by exposing him to the wild beasts in the menagerie of the grand duke. For this purpose he was first placed in the dens of the hyenas and tigers, all of whom he would have soon destroyed, had he not been speedily removed. At last he was handed over to the lion, but the mule, instead of exhibiting any symptoms of alarm, quietly receded to a corner, keeping his front opposed to his adversary. Once planted in the corner, he resolutely kept his place, eyeing every movement of the lion, which was preparing to spring The lion, however, perceiving the difficulty of an attack, practised all his wiles to throw the mule off his guard, but in vain. At length the latter, perceiving an opportunity, made a sudden rush upon the lion, and in an instant broke several of his teeth by the stroke of his fore-feet. The 'king of the animals,' as he has been called, finding that he had got quite enough of the combat, slunk grumbling to his cage, and left the hardy mule master of the battle.

As may be readily supposed, the intrepidity of the horse is often of signal service in the cause of humanity, commanding at once our esteem and admiration. We know of no instance in which his assistance was so successfully rendered as in that which once occurred at the Cape of Good Hope, and which is related by M. De Pages in his Travels Round the World. 'I should have found it difficult,' says he, 'to give it credit, had it not happened the evening before my arrival; and if, besides the public notoriety of the fact, I had not been an eye-witness of those vehement emotions of sympathy, blended with admiration, which it had justly excited in the mind of every individual at the Cape. A violent gale of wind setting in from north-north-west, a vessel in the road dragged her anchors, was forced on the rocks, and bulged; and while the greater part of the crew fell an immediate sacrifice to the waves, the remainder were seen from the shore struggling for their lives, by clinging to the different pieces of the wreck. The sea ran dreadfully high, and broke over the sailors with such amazing fury, that no boat whatever could venture off to their assistance. Meanwhile a planter, considerably advanced in life, had come from his farm to be a spectator of the shipwreck; his heart was melted at the sight of the unhappy seamen, and knowing the bold and enterprising spirit of his horse, and his particular excellence as a swimmer, he instantly determined to make a desperate effort for their deliverance. He alighted, and blew a little brandy into his horse's nostrils, when again seating

himself in the saddle, he instantly pushed into the midst of the breakers. At first both disappeared; but it was not long before they floated on the surface, and swam up to the wreck, when, taking with him two men, each of whom held by one of his boots, he brought them safe to shore. This perilous expedition he repeated no seldomer than seven times, and saved fourteen lives to the public; but, on his return the eighth time, his horse being much fatigued, and meeting a most formidable wave, he lost his balance, and was overwhelmed in a moment. The horse swam safely to land; but his gallant rider, alas! was no more.'

Occasionally, there is so much sagacity and affection combined with the intrepidity of the horse, that his conduct would do credit even to the bravest human nature. Like the dog, he has been known to swim to the assistance of a drowning creature, and this without any other impulse than that of his own generous feelings. Captain Thomas Brown, in his interesting Biographical Sketches of the Horse—a work to which we are indebted for several of the facts here recorded—mentions the following gratifying incident, which proves the possession of something more than mere unreasoning instinct: A little girl, the daughter of a gentleman in Warwickshire, playing on the banks of a canal which runs through his grounds, had the misfortune to fall in, and would in all probability have been drowned, had not a small pony, which had been long kept in the family, plunged into the stream and brought the child safely ashore without the slightest injury.

FLEETNESS, STRENGTH, AND ENDURANCE.

Although fleetness, strength, and power of endurance are strictly physical properties, yet they depend so intimately upon courage, emulation, and other moral qualities, that we cannot do better than consider them in this place. Taken separately, a greater degree of swiftness or of strength may be found in certain other animals, but in none are all these properties so fully and perfectly developed as in the horse. And what is also remarkable, in him they are improved by domestication, a process which tends to deteriorate them in most other animals. It is thus by the unwearied attention of breeders, that our own horses are now capable of performing what no others In 1755, Matchem ran the Beacon Course at Newmarket-in length four miles one furlong and one hundred and thirty-eight yards -with eight stone seven pounds, in seven minutes and twenty seconds. Flying Childers ran the same course in seven minutes and a half; and the Round Course, which is three miles six furlongs and ninety-three yards, in six minutes and forty seconds, carrying nine stone and two pounds. In 1772, a mile was run by Firetail in one minute and four seconds. In the year 1745, the postmaster of Stretton rode, on different horses, along the road to and from London, no less than 215 miles, in eleven hours and a half—a rate of above

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eighteen miles an hour; and in July 1788, a horse belonging to a gentleman of Billiter Square, London, was trotted for a wager thirty miles in an hour and twenty-five minutes—which is at the rate of more than twenty-one miles an hour. In September 1784, a Shetland pony, eleven hands high, carrying five stone, was matched for one hundred guineas to run from Norwich to Yarmouth and back again. which is forty-four miles. He performed it with ease in three hours and forty-five minutes, which was thought to be the greatest feat ever done by a horse of his height. In October 1741, at the Curragh meeting in Ireland, Mr Wilde engaged to ride 127 miles in nine hours; he performed it in six hours and twenty-one minutes, riding ten horses and allowing for mounting and dismounting, and a moment for refreshment; he rode for six hours at the rate of twenty miles an Mr Shafto, in 1762, with ten horses, and five of them ridden twice, accomplished fifty miles and a quarter in one hour and fortynine minutes. In 1763 he won a second match, which was to provide a person to ride 100 miles a day, on any one horse each day, for twenty-nine days together, and to have any number of horses not exceeding twenty-nine: he accomplished the task on fourteen horses; and on one day he rode 160 miles, on account of the tiring of his first horse. The celebrated Marquis de Lafayette rode, in August 1778, from Rhode Island to Boston, a distance of nearly seventy miles, in seven hours, and returned in six and a half. Mr Huell's Quibbler, however, afforded the most extraordinary instance on record of the stoutness as well as speed of the race-horse, when, in December 1786, he ran twenty-three miles round the flat at Newmarket in fifty-seven minutes and ten seconds. Hundreds of other examples might be quoted, some of them even perhaps more wonderful than those above cited, but these will serve at least to shew the astonishing fleetness of the horse, and to confirm our assertion, that in this particular he is not surpassed by any other quadruped.

The strength and power of draught in the horse is not less remarkable than his swiftness. 'In London,' says Bingley, in his Animal Biography, 'there have been instances of a single horse drawing, for a short space, the weight of three tons; and some of the pack-horses of the north usually carry burdens weighing upwards of 400 pounds; but the most remarkable proof of the strength of the British breed is in our mill-horses, some of which have been known to carry, at one load, thirteen measures of corn, that, in the whole, would amount to more than 900 pounds weight.' Useful as the horse may be to man on account of his great natural strength, his utility is increased tenfold by the assistance of art, as is well illustrated by the following trial which took place near Croydon, in Surrey: The Surrey iron railway being completed, and opened for the carriage of goods from Wandsworth to Mertsham, a bet was made that a common horse could draw thirty-six tons for six miles along the road, and that he

should draw his weight from a dead pull, as well as turn it round the occasional windings of the road. A number of gentlemen assembled near Mertsham to witness this extraordinary triumph of art. Twelve wagons loaded with stones, each wagon weighing about three tons, were chained together, and a horse belonging to Mr Harwood voked to the team. He started from near the Fox public-house, and drew the immense chain of wagons, with apparent ease, to near the turnpike at Croydon, a distance of six miles, in one hour and forty-six minutes, which is nearly at the rate of four miles an hour. In the course of the undertaking he was stopped four times, to shew that it was not by the impetus of the descent the power was acquired. After each stoppage, a chain of four wagons was added to the cavalcade, with which the same horse again set off with undiminished power. And still further to shew the effect of the railway in facilitating motion, the attending workmen, to the number of about fifty, were directed to mount the wagons; still the horse proceeded without the least distress; and, in truth, there appeared to be scarcely any limitation to the power of his draught. After the trial, the wagons were taken to the weighing-machine, when it was found that the whole weight was little short of fifty-five tons and a half!

The endurance of the horse is also exceedingly great, and equalled only perhaps by that of the camel. The elephant either breaks down under his own weight, or becomes infuriated when goaded beyond his accustomed powers; the ox, though extremely patient, soon suffers in his feet, or becomes faint through hunger; but the horse toils on unflinchingly, till not unfrequently he drops down dead The mares of the Bedouin Arabs will through sheer exhaustion. often travel fifty miles without stopping; and they have been known to go 120 miles on emergencies, with hardly a respite, and no food. In 1804, an Arab horse at Bangalore, in the presidency of Madras. ran 400 miles in the course of four successive days, and that without shewing any symptoms of more than ordinary fatigue. Sometimes our own English horses will perform equally astonishing feats, notwithstanding that they carry larger weights, and are more heavily harnessed. In June 1827, a gentleman left Dublin, mounted on a small gelding, in company with the day-coach for Limerick, and arrived at Nenagh at six o'clock the same evening, having kept the vehicle in view all the time, and entered the town with it, riding the same horse. There was a wager of fifty guineas to ten that he would not bring the horse alive to Nenagh. The animal was, however, none the worse for it, after the extraordinary ride of ninety-five English miles.

Even the ass, dull and stupid as our bad treatment too often makes him, is not without his share of vigour and endurance. In 1826, according to Captain Brown, a clothier of Ipswich undertook to drive his ass in a light gig to London and back again—a distance of 140 miles—in two days. The ass went to London at a pace little

short of a good gig-horse, and fed at different stages well; on his return he came in, without the application of a whip, at the rate of seven miles an hour, and performed the whole journey with ease. He was twelve and a half hands high, and half-breed Spanish and English.

ATTACHMENT TO MAN.

In submission and attachment to man, the horse is equalled only by the dog and elephant. He soon learns to distinguish his master's voice, and to come at his call; he rejoices in his presence, and seems restless and unhappy during his absence; he joins with him willingly in any work, and appears susceptible of emulation and rivalry; and though frequently fierce and dangerous to strangers, yet there are few instances on record of his being faithless to those with whom he is domesticated, unless under the most inhumane and barbarous Colonel Smith relates the following affecting incident treatment. of attachment in a charger which belonged to the late General Sir Robert Gillespie: When Sir Robert fell at the storming of Kalunga, his favourite black charger, bred at the Cape of Good Hope, and carried by him to India, was, at the sale of his effects, competed for by several officers of his division, and finally knocked down to the privates of the 8th Dragoons, who contributed their prize-money, to the amount of £500 sterling, to retain this commemoration of their late commander. Thus the charger was always led at the head of the regiment on a march, and at the station of Cawnpore, was usually indulged with taking his ancient post at the colour-stand, where the salute of passing squadrons was given at drill and on reviews. When the regiment was ordered home, the funds of the privates running low, he was bought for the same sum by a relative of ours, who provided funds and a paddock for him, where he might end his days in comfort; but when the corps had marched, and the sound of the trumpet had departed, he refused to eat, and on the first opportunity, being led out to exercise, he broke from his groom, and galloping to his ancient station on the parade, after neighing aloud, dropped down and died.

The affection of the horse is sometimes displayed in joyous gambols and familiar caresses like those of the dog, though, like the man in the fable who was embraced by his ass, one would willingly dispense with such boisterous manifestations. We are informed in the Sporting Magazine, that a gentleman in Buckinghamshire had in his possession, December 1793, a three-year-old colt, a dog, and three sheep, which were his constant attendants in all his walks. When the parlour window, which looked into the field, happened to be open, the colt had often been known to leap through it, go up to and caress his master, and then leap back to his pasture. We have ourselves often witnessed similar signs of affection on the part of an old Shetland pony, which would place its fore-foot in the hand of its

young master like a dog, thrust its head under his arm to be caressed, and join with him and a little terrier in all their noisy rompings on the lawn. The same animal daily bore its master to school, and though its heels and teeth were always ready for every aggressive urchin, yet so attached was it to this boy, that it would wait hours for him in his sports by the way, and even walk alone from the stable in town to the school-room, which was fully half a mile distant, and wait saddled and bridled for the afternoon's dismissal. Indeed the young scapegrace did not deserve one-tenth of this attention, for we have often seen old 'Donald' toiling homeward with him at the gallop, to make up for time squandered at taw or cricket.

Occasionally equine attachment exhibits itself in a light as exalted and creditable as that of the human species. During the Peninsular War, the trumpeter of a French cavalry corps had a fine charger assigned to him, of which he became passionately fond, and which, by gentleness of disposition and uniform docility, equally evinced its affection. The sound of the trumpeter's voice, the sight of his uniform, or the twang of his trumpet, was sufficient to throw this animal into a state of excitement; and he appeared to be pleased and happy only when under the saddle of his rider. Indeed he was unruly and useless to everybody else; for once, on being removed to another part of the forces, and consigned to a young officer, he resolutely refused to perform his evolutions, and bolted straight to the trumpeter's station, and there took his stand, jostling alongside his former master. This animal, on being restored to the trumpeter, carried him, during several of the Peninsular campaigns, through many difficulties and hair-breadth escapes. At last the corps to which he belonged was worsted, and in the confusion of retreat the trumpeter was mortally wounded. Dropping from his horse, his body was found many days after the engagement stretched on the sward, with the faithful charger standing beside it. During the long interval, it seems that he had never quitted the trumpeter's side, but had stood sentinel over his corpse, scaring away the birds of prey, and remaining totally heedless of his own privations. When found, he was in a sadly reduced condition, partly from loss of blood through wounds, but chiefly from want of food, of which, in the excess of his grief, he could not be prevailed on to partake.

On the evening of Saturday the 24th February 1830, Mr Smith, supervisor of excise at Beauly, was proceeding home from a survey of Fort-Augustus, and, to save a distance of about sixteen miles, he took the hill-road from Drumnadrochit to Beauly. The road was completely blocked up with, and indiscernible amidst the waste of snow, so that Mr Smith soon lost all idea of his route. In the reins, allowed him to choose his own course. The animal made way, though slowly and cautiously, till coming to a ravine near Glencon-

vent, when both horse and rider suddenly disappeared in a snow wreath several fathoms deep. Mr Smith, on recovering, found himself nearly three yards from the dangerous spot, with his faithful horse standing over him, and licking the snow from his face. He thinks the bridle must have been attached to his person. So completely, however, had he lost all sense of consciousness, that beyond the bare fact as stated, he had no knowledge of the means by which he had made so striking and providential an escape.

Very similar to the above is the following instance related of a hunter belonging to a farmer in the neighbourhood of Edinburgh: On one occasion his master was returning home from a jovial meeting, where he had been very liberal in his potations, which destroyed his power of preserving his equilibrium, and rendered him at the same time somewhat drowsy. He had the misfortune to fall from his saddle, but in so easy a manner, that it had not the effect of rousing him from his sleepy fit; and he felt quite contented to rest where he had alighted. His faithful steed, on being eased of his burden, instead of scampering home, as one would have expected from his habits (which were somewhat vicious), stood by his prostrate master, and kept a strict watch over him. The farmer was discovered by some labourers at sunrise, very contentedly snoozing on a heap of stones by the roadside. They naturally approached to replace him on his saddle; but every attempt to come near him was resolutely opposed by the grinning teeth and ready heels of his

faithful and determined guardian.

The Biographical Sketches, on the authority of which we give the preceding, also records the following, as exhibiting a still more sagacious solicitude on the part of the horse for his master: 'A farmer who lives in the neighbourhood of Belford, and regularly attends the markets there, was returning home one evening in 1828, and being somewhat tipsy, rolled off his saddle into the middle of the road. His horse stood still; but after remaining patiently for some time, and not observing any disposition in its rider to get up and proceed further, he took him by the collar and shook him. This had little or no effect, for the farmer only gave a grumble of dissatisfaction at having his repose disturbed. The animal was not to be put off with any such evasion, and so applied his mouth to one of his master's coat laps, and after several attempts, by dragging at it, to raise him upon his feet, the coat lap gave way. Three individuals who witnessed this extraordinary proceeding then went up, and assisted him in mounting his horse, putting the one coat lap into the pocket of the other, when he trotted off, and safely reached home. This horse is deservedly a favourite of his master, and has, we understand, occasionally been engaged in gambols with him like a dog.'

The generally received opinion, that asses are stubborn and intractable, alike unmoved by harsh or affectionate usage, is in a

great measure unfounded, as appears from the following anecdote, related in Church's Cabinet of Quadrupeds. In most instances, their stubbornness is the result of bad treatment—a fact that says less for the humanity and intelligence of man, than for the natural dispositions of the brute. An old man, who a few years ago sold vegetables in London, used in his employment an ass, which conveyed his baskets from door to door. Frequently he gave the poor industrious creature a handful of hay, or a piece of bread, or greens, by way of refreshment and reward. He had no need of any goad for the animal, and seldom indeed had he to lift up his hand to drive it on. His kind treatment was one day remarked to him, and he was asked whether his beast was apt to be stubborn. 'Ah! master,' replied he, 'it is of no use to be cruel, and as for stubbornness, I cannot complain; for he is ready to do anything, and go anywhere. I bred him myself. He is sometimes skittish and playful, and once ran away from me; you will hardly believe it, but there were more than fifty people after him, yet he turned back of himself, and never stopped till he ran his head kindly into my bosom.

INSTANCES OF REVENGE AND OBSTINACY.

Though Providence seems to have implanted in the horse a benevolent disposition, with at the same time a certain awe of the human race, yet there are instances on record of his recollecting injuries, and fearfully revenging them. A person near Boston, in America, was in the habit, whenever he wished to catch his horse in the field, of taking a quantity of corn in a measure by way of bait. On calling to him, the horse would come up and eat the corn, while the bridle was put over his head. But the owner having deceived the animal several times, by calling him when he had no corn in the measure, the horse at length began to suspect the design; and coming up one day as usual, on being called, looked into the measure, and seeing it empty, turned round, reared on his hind-legs, and killed his master on the spot.

In the preceding instance the provocation was deceit and trickery; the poor horse, however, often receives heavier incentives to revenge. Can we blame him when he attempts it in such cases as the following? A baronet, one of whose hunters had never tired in the longest chase, once encouraged the cruel thought of attempting completely to fatigue him. After a long chase, therefore, he dined, and again mounting, rode furiously among the hills. When brought to the stable, his strength appeared exhausted, and he was scarcely able to walk. The groom, possessed of more feeling than his brutal master, could not refrain from tears at the sight of so noble an animal thus sunk down. The baronet some time after entered the stable, and the horse made a furious spring upon him;

and had not the groom interfered, would soon have put it out of his power of ever again misusing his animals.

It is told of a horse belonging to an Irish nobleman, that he always became restive and furious whenever a certain individual came into his presence. One day this poor fellow happened to pass within reach, when the animal seized him with his teeth and broke his arm; it then threw him down, and lay upon him—every effort to get it off proving unavailing, till the bystanders were compelled to shoot it. The reason assigned for this ferocity was, that the man had performed a cruel operation on the animal some time before, and which it seems to have revengefully remembered.

The ass, like his congener the horse, is also sometimes influenced by the most determined revenge. At Salwell, in 1825, an ass was ferociously attacked by a bull-dog; but the poor animal defended himself so gallantly with his heels—keeping his rear always presented to his assailant—that the dog was unable to fix on him. He at length turned rapidly round on his adversary, and caught hold of him with his teeth in such a manner that the dog was unable to retaliate. Here the dog howled most repentantly, and one would have thought that the ass would have dismissed him with this punishment: but no; he dragged the enemy to the river Derwent, into which he put him over the head, and lying down upon him, kept him under water till he was drowned.

Occasionally the horse displays unparalleled obstinacy, suffering himself to be lashed and bruised in the severest manner rather than yield to the wishes of his master. In most instances there is some discoverable cause for such perversity, though in some there appears to be no other impulse save that of a stubborn and wilful disposition. We have witnessed a draught-horse, working lustily and cheerfully, all at once stand still on coming to a certain spot; and no coaxing that could be offered, or punishment that could be inflicted, would cause him to move one step, until he was blindfolded, and then he would push forward as if nothing had happened. On one occasion, we chanced to see a carter's horse take one of these obstinate fits, when issuing from a quarry with a load of stones. shameful tortures were had recourse to by the carter and quarrymen; but all to no purpose. We believe the animal would have suffered himself to be cut to pieces rather than stir one foot. At last the carter in desperation threw an iron chain round the neck of the animal, and yoked another horse to the chain; but no sooner did the obstinate brute perceive the intention of this application, than he rushed forward; and from that day, the simple jingling of a chain was quite sufficient to put him out of the sulks.

For the most part, however, there is some apparent cause for these intractable fits, such as the remembrance of a fright, of a severe punishment, or of some other injury. Thus we have known a riding-horse pass within a few feet of the wands of a wind-mill

when in motion; and yet no force or persuasion would induce him to pass them when they were at rest. This seemed curious to his master, till told that one day, when the animal was grazing immediately under the wands, they were suddenly set in motion, which so frightened him, that in his haste to escape he came down, and was stunned by the fall. The recollection of this had never forsaken him; and though he had courage to pass a moving wand, he could never so much as face one that had a chance of being suddenly set in motion. Akin to this is the following, related to us by a correspondent: In travelling by coach some years ago, we stopped at a country stage to change horses. While this process was going on, we remarked a peculiar interest to attach to the left-wheel horse, a strong-built, though rather hard-favoured and sinisterlooking animal. After unusual preparations had been made, and amid the leers and jibes of a bevy of ostlers and post-boys, who stood by armed with whips and staves, the order was given to The other horses bounded forward, but the left-wheeler instantly squatted down on the ground, and there he lay, notwithstanding the shower of blows with which he was forthwith assailed from the bystanders. It was in vain that they beat, coaxed, and threatened him—there he lay, sullen and unmoved, till at last they were obliged to unyoke him, and supply his place with another. This had not been his first trick of the kind; yet we were told that the same horse submitted quietly to be yoked in a gig, and always proved a steady roadster. Some antipathy had rendered the coach abhorrent to him, though he did not pretend to exempt himself from other kinds of labour.

The ascendency which some individuals have over intractable horses of this sort is truly wonderful, as the following curious instance, related of James Sullivan, a horse-breaker at Cork, and an awkward rustic of the lowest class, will shew. This man obtained the singular appellation of the Whisperer, from a most extraordinary art which he possessed of controlling, in a secret manner, and taming into the most submissive and tractable disposition, any horse that was notoriously vicious and obstinate. He practised his skill in private, and without any apparent forcible means. In the short space of half an hour, his magical influence would bring into perfect submission and good temper even a colt that had never been handled; and the effect, though instantaneously produced, was generally durable. When employed to tame an outrageous animal, he directed the stable in which he and the object of the experiment were placed to be shut, with orders not to open the door until a signal was given. After a tête-à-tête between him and the horse for about half an hour, during which little or no bustle was heard, the signal was made, and upon opening the door, the horse was seen lying down, and the man by his side playing familiarly with him, like a child with a puppy dog. From

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that time he was found perfectly willing to submit to any discipline. however repugnant to his nature before. The narrator of this account says: 'I once saw his skill on a horse which could never before be brought to stand for a smith to shoe him. The day after Sullivan's half-hour lecture, I went, not without some incredulity, to the smith's shop, with many other curious spectators, where we were eye-witnesses of the complete success of his art. This, too, had been a troop-horse; and it was supposed, not without reason, that, after regimental discipline had failed, no other would be found availing. I observed that the animal appeared afraid whenever Sullivan either spoke or looked at him. How that extraordinary ascendency could have been obtained, it is difficult to conjecture. He seemed to possess an instinctive power of inspiring awe, the result perhaps of a natural intrepidity, in which I believe a great part of his art consisted, though the circumstance of a tête-à-tête shews, that upon particular occasions something more must have been added to it.'

ATTACHMENT TO OTHER ANIMALS.

Gregarious when wild, the horse retains his sociable disposition undiminished by domestication and bondage. 'My neighbour's horse,' says White of Selborne, 'will not only not stay by himself abroad, but he will not bear to be left alone in a strange stable without discovering the utmost impatience, and endeavouring to break the rack and manger with his fore-feet. He has been known to leap out at a stable window, through which dung was thrown, after company; and yet in other respects he is remarkably quiet.' The same disposition characterises less or more every member of the family. Many horses, though quiet in company, will not stay one minute in a field by themselves; and yet the presence of a cow, of a goat, or a pet lamb, will perfectly satisfy them. The attachments which they thus form are often curious and inexplicable.

A gentleman of Bristol had a greyhound, which slept in the stable along with a very fine hunter of about five years of age. These animals became mutually attached, and regarded each other with the most tender affection. The greyhound always lay under the manger beside the horse, which was so fond of him, that he became unhappy and restless when the dog was out of his sight. It was a common practice with the gentleman to whom they belonged to call at the stable for the greyhound to accompany him in his walks: on such occasions the horse would look over his shoulder at the dog with much anxiety, and neigh in a manner which plainly said: 'Let me also accompany you.' When the dog returned to the stable, he was always welcomed by a loud neigh—he ran up to the horse and licked his nose; in return, the horse would scratch the dog's back with his teeth. One day, when the groom was out with

the horse and greyhound for exercise, a large dog attacked the latter, and quickly bore him to the ground; on which the horse threw back his ears, and, in spite of all the efforts of the groom, rushed at the strange dog that was worrying at the greyhound, seized him by the back with his teeth, which speedily made him quit his hold, and shook him till a large piece of the skin gave way. The offender no sooner got on his feet, than he judged it prudent to beat a pre-

cipitate retreat from so formidable an opponent.

The following singular instance of attachment between a pony and a lamb is given by Captain Brown: 'In December 1825, Thomas Rae, blacksmith, Hardhills, parish of Brittle, purchased a lamb of the black-faced breed from an individual passing with a large flock. It was so extremely wild, that it was with great difficulty separated from its fleecy companions. He put it into his field in company with a cow and a little white Galloway. It never seemed to mind the cow, but soon exhibited manifest indications of fondness for the pony, which, not insensible to such tender approaches, amply demonstrated the attachment to be reciprocal. They were now to be seen in company in all circumstances, whether the pony was used for riding or drawing. Such a spectacle no doubt drew forth the officious gaze of many; and when likely to be too closely beset, the lamb would seek an asylum beneath the pony's belly, and pop out its head betwixt the fore or hind legs, with looks of conscious security. At night, it invariably repaired to the stable, and reposed under the manger, before the head of its favourite. When separated, which only happened when effected by force, the lamb would raise the most plaintive bleatings, and the pony responsive neighings. On one occasion they both strayed into an adjoining field, in which was a flock of sheep; the lamb joined the flock at a short distance from the pony, but as soon as the owner removed him, it quickly followed without the least regard to its own species. Another instance of the same description happened when riding through a large flock: it followed on without shewing any symptoms of a wish to remain with its natural companions.'

As already remarked, the attachments which the horse will form, when separated from his own kind, are often curious and inexplicable, shewing how much the whole animal creation, from man himself to the humblest insect, is under the influence of a social nature. 'Even great disparity of kind,' says White, 'does not always prevent social advances and mutual fellowship; for a very intelligent and observant person has assured me, that in the former part of his life, keeping but one horse, he happened also on a time to have but one solitary hen. These two incongruous animals spent much of their time together in a lonely orchard, where they saw no creature but each other. By degrees an apparent regard began to take place between these two sequestered individuals. The fowl would approach the quadruped with notes of complacency, rubbing herself quietly against

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his legs, while the horse would look down with satisfaction, and move with the greatest caution and circumspection, lest he should trample on his diminutive companion. Thus, by mutual good offices, each seemed to console the vacant hours of the other; so that Milton, when he puts the following sentiment in the mouth of Adam, seems somewhat mistaken:

"Much less can bird with beast, or fish with fowl So well converse, nor with the ox the ape."

We shall close this pleasing section of the horse's history with an extract from the Biographical Sketches, which speaks volumes for the intelligence and affection of the brute creation: 'My friend, Dr Smith, of the Queen's County Militia, Ireland, had a beautiful hackney, which, although extremely spirited, was at the same time wonderfully docile. He had also a fine Newfoundland dog, named Cæsar. These animals were mutually attached, and seemed perfectly acquainted with each other's actions. The dog was always kept in the stable at night, and always lay beside the horse. When Dr Smith practised in Dublin, he visited his patients on horseback, and had no other servant to take care of the horse, while in their houses, but Cæsar, to whom he gave the reins in his mouth. The horse stood very quietly, even in that crowded city, beside his friend Cæsar. When it happened that the doctor had a patient not far distant from the place where he paid his last visit, he did not think it worth while to remount, but called to his horse and Cæsar. They both instantly obeyed, and remained quietly opposite the door where he entered, until he came out again. While he remained in Maryborough, Queen's County, where I commanded a detachment, I had many opportunities of witnessing the friendship and sagacity of these intelligent animals. The horse seemed to be as implicitly obedient to his friend Cæsar as he could possibly be to his groom. The doctor would go to the stable, accompanied by his dog, put the bridle upon his horse, and giving the reins to Cæsar, bid him take the horse to the water. They both understood what was to be done, when off trotted Cæsar, followed by the horse, which frisked, capered, and played with the dog all the way to the rivulet, about three hundred yards distant from the stable. We followed at a great distance, always keeping as far off as possible, so that we could observe their They invariably went to the stream, and after the horse had quenched his thirst, both returned in the same playful manner as they had gone out.

'The doctor frequently desired Cæsar to make the horse leap over this stream, which might be about six feet broad. The dog, by a kind of bark, and leaping up towards the horse's head, intimated to him what he wanted, which was quickly understood; and he cantered off, preceded by Cæsar, and took the leap in a neat and regular style. The dog was then desired to bring him back again, and it was

speedily done in the same manner. One one occasion Cæsar lost hold of the reins, and as soon as the horse cleared the leap, he immediately trotted up to his canine guide, who took hold of the bridle, and led him through the water quietly.'

POWER OF MEMORY.

Horses have exceedingly good memories. In the darkest nights they will find their way homeward, if they have but once passed over the road; they will recognise their old masters after a lapse of many years; and those that have been in the army, though now degraded to carters' drudges, will suddenly become inspirited at the sight of military array, and rush to join the ranks, remembering not only their old uniform, but their own places in the troop, and the order of the various manœuvres. Many interesting anecdotes might be recited under this head, which place the retentive powers of the

horse in a highly pleasing and creditable light.

A gentleman rode a young horse, which he had bred, thirty miles from home, and to a part of the country where he had never been before. The road was a cross one, and extremely difficult to find; however, by dint of perseverance and inquiry, he at length reached his destination. Two years afterwards, he had occasion to go the same way, and was benighted four or five miles from the end of his The night was so dark that he could scarcely see the He had a dreary moor and common to pass, and horse's head. had lost all traces of the proper direction he had to take. The rain began to fall heavily. He now contemplated the uncertainty of his situation. 'Here am I,' said he to himself, 'far from any house, and in the midst of a dreary waste, where I know not which way to direct the course of my steed. I have heard much of the memory of the horse, and in that is now my only hope.' He threw the reins on the horse's neck, and encouraging him to proceed, found himself safe at the gate of his friend in less than an hour. It must be remarked, that the animal could not possibly have been that road but on the occasion two years before, as no person ever rode him but his master.

Sometimes the recollection of the horse serves him so well, that he will perform actions with as much precision when left to himself, as though he had been under the guidance of his master. A Wiltshire gentleman, in 1821, lent a well-bred and fiery mare to a friend from town, who had come down to try the Essex dogs against the Wilts breed of greyhounds. At the close of a very fine day's sport, the huntsman had to beat a small furze-brake, and, for the purpose of better threading it, the London gentleman dismounted, and gave the bridle of his mare to the next horseman. Puss was soon started; the 'halloo' was given. The person who held the mare, in the eagerness of the sport, forgot his charge, loosed his hold, and,

regardless of any other than his own steed, left the mare to run, like Mazeppa's, 'wild and untutored.' But, to the astonishment of all, instead of so doing, or even attempting to bend her course homewards (and she was in the immediate neighbourhood of her stable), she ran the whole course at the tail of the dogs, turned as well as she could when they brought the prey about; and afterwards, by outstripping all competitors (for the run was long and sharp), she stopped only at the death of the hare, and then suffered herself to be quietly regained and remounted. What renders it still more remarkable is, that the animal had only twice followed the hounds previous to this event. It is true that her conduct may have been influenced by the circumstance, that the brace of dogs which were slipped were the property of her owner, and the groom had been in the habit of exercising them with her.

To prove that the notes of hounds have an overpowering influence upon horses which have once joined the chase, another incident, which occurred in 1807, has often been related: As the Liverpool mail-coach was changing horses at the inn at Monk's Heath, between Congleton and Wilmslow in Cheshire, the horses that had performed the stage from Congleton having just been taken off and separated, hearing Sir Peter Warburton's fox-hounds in full cry, immediately started after them with their harness on, and followed the chase till the last. One of them, a blood mare, kept the track with the whipper-in, and gallantly followed him for about two hours over every leap he took, till Reynard ran to earth in Mr Hibbert's plantation. These spirited horses were led back to the inn at Monk's Heath, and performed the stage back to Congleton the same

Horses being highly susceptible in their dispositions, are also peculiarly mindful of kind treatment. 'This,' says Colonel Smith, was very manifest in a charger that had been two years our own, and which was left with the army, but had subsequently been brought back and sold in London. About three years after, we chanced to travel up to town, and at a relay, getting out of the mail, the off-wheel horse attracted our attention, and upon going near to examine it, we found the animal recognising its former master, and testifying satisfaction by rubbing its head against our clothes, and making every moment a little stamp with the fore-feet, till the coachman asked if the horse was not an old acquaintance. We remember,' continues the colonel, 'a beautiful and most powerful charger belonging to a friend, then a captain in the 14th Dragoons, bought by him in Ireland at a low price, on account of an impetuous viciousness, which had cost the life of one or two grooms. captain was a kind of centaur rider, not to be flung by the most violent efforts, and of a temper for gentleness that would effect a cure, if vice were curable. After some very dangerous combats with his horse, the animal was subdued, and became so attached, that

evening.

his master could walk anywhere with him following like a dog, and even ladies could mount him with perfect safety. He rode him during several campaigns in Spain; and on one occasion, when in action, horse and rider came headlong to the ground, the animal, making an effort to spring up, placed his fore-foot on the captain's breast, but immediately withdrawing it, rose without hurting him, or

moving till he was remounted.'

The most remarkable instances of minute recollection, however, occur in horses that have been accustomed to the army. It is told that in one of their insurrections in the early part of the present century, the Tyrolese captured fifteen horses belonging to the Bavarian troops sent against them, and mounted them with fifteen of their own men, in order to go out to a fresh rencontre with the same troops; but no sooner did these horses hear the well-known sound of their own trumpet, and recognise the uniform of their own squadron, than they dashed forward at full speed; and, in spite of all the efforts of their riders, bore them into the ranks, and delivered them up as prisoners to the Bavarians. 'If an old military horse,' we quote the Cyclopædia of Natural History, 'even when reduced almost to skin and bone, hears the roll of a drum or the twang of a trumpet, the freshness of his youth appears to come upon him, and if he at the same time gets a sight of men clad in uniform, and drawn up in line, it is no easy matter to prevent him from joining Nor does it signify what kind of military they are, as is shewn by the following case: Towards the close of last century, about the time when volunteers were first embodied in the different towns, an extensive line of turnpike-road was in progress of construction in a part of the north. The clerk to the trustees upon this line used to send one of his assistants to ride along occasionally, to see that the contractors, who were at work in a great many places. were doing their work properly. The assistant, on these journeys, rode a horse which had for a long time carried a field-officer, and though aged, still possessed a great deal of spirit. One day, as he was passing near a town of considerable size which lay on the line of road, the volunteers were at drill on the common; and the instant that Solus (for that was the name of the horse) heard the drum, he leaped the fence, and was speedily at that post in front of the volunteers which would have been occupied by the commandingofficer of a regiment on parade or at drill; nor could the rider by any means get him off the ground until the volunteers retired to the town. As long as they kept the field, the horse took the proper place of a commanding-officer in all their manœuvres; and he marched at the head of the corps into the town, prancing in military style as cleverly as his stiffened legs would allow him, to the great amusement of the volunteers and spectators, and to the no small annoyance of the clerk, who did not feel very highly honoured by Solus making a colonel of him against his will.

The following illustration of combined memory and reasoning has often been recorded; we are not aware, however, upon whose authority it originally appeared: A cart-horse belonging to Mr Leggat, Gallowgate Street, Glasgow, had been several times afflicted with the bots, and as often cured by Mr Downie, farrier there. He had not, however, been troubled with that disease for a considerable time; but on a recurrence of the disorder, he happened one morning to be employed in College Street, a distance of nearly a mile from Mr Downie's workshop. Arranged in a row with other horses engaged in the same work, while the carters were absent, he left the range, and, unattended by any driver, went down the High Street, along the Gallowgate, and up a narrow lane, where he stopped at the farrier's door. As neither Mr Leggat nor any one appeared with the horse, it was surmised that he had been seized with his old complaint. Being unyoked from the cart, he lay down and shewed by every means of which he was capable that he was in distress. He was again treated as usual, and sent home to his master, who had by that time persons in all directions in search of him.

In point of sagacity and memory, the ass is nothing inferior to his nobler congener, as is shewn by the subjoined well-known anecdote: In 1816, an ass belonging to Captain Dundas, then at Malta, was shipped on board the *Ister* frigate, bound from Gibraltar to that island. The vessel struck on a sand-bank off Cape de Gat; and the ass was thrown overboard, in the hope that it might be able to swim to land; of which, however, there seemed little chance, for the sea was running so high, that a boat which left the ship was lost. A few days after, when the gates of Gibraltar were opened in the morning, the guard was surprised by the ass presenting himself for admittance. On entering, he proceeded immediately to the stable of his former master. The poor animal had not only swam safely to shore, but, without guide, compass, or travellingmap, had found his way from Cape de Gat to Gibraltar—a distance of more than two hundred miles—through a mountainous and intricate country, intersected by streams, which he had never traversed before, and in so short a period that he could not have

made one false turn.

DOCILITY.

The docility of the horse is one of the most remarkable of his natural gifts. Furnished with acute senses, an excellent memory, high intelligence, and gentle disposition, he soon learns to know and obey his master's will, and to perform certain actions with astonishing accuracy and precision. The range of his performances, however, is limited by his physical conformation: he has not a hand to grasp, a proboscis to lift the minutest object, nor the advantages of a light and agile frame; if he had, the monkey the dog, and the

elephant would in this respect be left far behind him. Many of the anecdotes that are told under this head are highly entertaining.

Mr Astley, junior, of the Royal Amphitheatre, Westminster Bridge, once had in his possession a remarkably fine Barbary horse, forty-three years of age, which was presented him by the Duke of Leeds. This celebrated animal for a number of years officiated in the character of a waiter in the course of the performances at the amphitheatre, and at various other theatres in the United Kingdom. At the request of his master, he would ungirth his own saddle, wash his feet in a pail of water, and would also bring into the ridingschool a tea-table and its appendages, which feat was usually followed up by fetching a chair, or stool, or whatever might be wanted. His achievements were generally wound up by his taking a kettle of boiling water from a blazing fire, to the wonder and admiration of the spectators. Ray affirms that he has seen a horse that danced to music, which at the command of his master affected to be lame, feigned death, lay motionless with his limbs extended, and allowed himself to be dragged about till some words were Feats of this pronounced, when he instantly sprang to his feet. kind are now indeed common, and must have been witnessed by many of our readers in the circuses of Astley, Ord, Ducrow, and others. Dancing, embracing, lying down to make sport with their keepers, fetching cane and gloves, selecting peculiar cards, and many similar performances, are among the expected entertainments of all equestrian exhibitions.

Some years ago, one of the most attractive of Ducrow's exhibitions was 'The Muleteer and his Wonderful Horse.' The feats of this pair are pleasantly described in a popular journal, by an individual who witnessed them in 1838: 'The horse,' says this writer, 'is a beautiful piebald, perfect almost in mould, and adorned about the neck with little bells. At first, it playfully and trickishly avoids its master when he affects an anxiety to catch it; but when the muleteer averts his head, and assumes the appearance of sullenness, the animal at once stops, and comes up close to his side, as if very penitent for its untimely sportiveness. Its master is pacified, and after caressing it a little, he touches the animal's fore-legs. stretches them out, and, in doing so, necessarily causes the hind-legs to project also. We now see the purpose of these movements. The muleteer wishes a seat, and an excellent one he finds upon the horse's protruded hind-legs. A variety of instances of docility similar to this are exhibited by the creature in succession, but its leaping feats appeared to us the most striking of all. Poles are brought into the ring, and the horse clears six of these, one after the other, with a distance of not more than four feet between! After it has done this, it goes up limping to its master, as if to say: "See, I can do no more to-night!" The muleteer lifts the lame foot, and seems to search for the cause of the halt, but in vain. Still, however, the horse goes on

limping. The muleteer then looks it in the face, and shakes his head, as if he would say: "Ah! you are shamming, you rogue; aren't you?" And a sham it proves to be; for, at a touch of the whip, the creature bounds off like a fawn, sound both in wind and limb.'

One of the earliest equine actors in this country was Banks's celebrated horse 'Morocco,' alluded to by Shakspeare in Love's Labour's Lost, and by other writers of that time. It is stated of this animal that he would restore a glove to its owner after his master had whispered the man's name in his ear, and that he would tell the number of pence in any silver coin. He danced likewise to the sound of a pipe, and told money with his feet. Sir Walter Raleigh quaintly remarks, 'that had Banks lived in older times, he would have shamed all the enchanters in the world; for whosoever was most famous among them could never master or instruct any beast as he did his horse.' M. Legendre mentions similar feats performed by a small horse at the fair of St Germain in 1732. Among others which he accomplished with astonishing precision, he could specify, by striking his foot so many times on the ground, the number of pips upon a card which any person present had drawn out of a pack. He could also tell the hour and minute to which the hands of a watch pointed in a similar manner. His master collected a number of coins from different persons in the company, mixed them together, and threw them to the horse in a handkerchief. The animal took it in his mouth, and delivered to each person his own piece of money. What is still more wonderful, considering his size, weight, and peculiarity of construction, the horse has been known to pass along the tight rope. It is recorded that, at the solemnities which attended the wedding of Robert, brother to the king of France, in 1237, a horse was ridden along a rope, and that it kept balance and moved with precision. Our surprise at this rope-dancing faculty may, however, be a little abated, when we learn that the more unwieldy elephant has actually exhibited the same performance.*

Even the ass, stupid as we are accustomed to consider him, is capable of being taught tricks equally clever and amusing. Leo, in his Description of Africa, 1556, gives the following account of a performance which he witnessed in Egypt: 'When the Mohammedan worship is over, the common people of Cairo resort to that part of the suburbs called Bed-Elloch, to see the exhibition of stageplayers and mountebanks, who teach camels, asses, and dogs to The dancing of the ass is diverting enough; for after he has frisked and capered about, his master tells him that the sultan, meaning to build a great palace, intends to employ all the asses in

^{*} According to Pliny, at the spectacles given by the Emperor Germanicus, it was not an ancomony, to runy, at me spectacies given by the Emperor Germanicus, it was not an uncommon thing to see elephants hurl javelins in the air, and catch them in their trunks—fight with each other as gladiators, and then execute a Pyrrhic dance. Lastly, they danced upon a rope, and their steps were so practised and certain, that four of them traversed the rope (or rather parallel ropes) bearing a litter which contained one of their companions, who feigned to be sick.

carrying mortar, stones, and other materials; upon which the ass falls down with his heels upwards, closing his eyes, and extending his chest, as if he were dead. This done, the master begs some assistance of the company, to make up for the loss of the dead ass; and having got all he can, he gives them to know that truly his ass is not dead, but only, being sensible of his master's necessity, played that trick to procure some provender. He then commands the ass to rise, which still lies in the same posture, notwithstanding all the blows he can give him; till at last he proclaims, by virtue of an edict of the sultan, all are bound to ride out next day upon the comeliest asses they can find, in order to see a triumphal show, and to entertain their asses with oats and Nile water. These words are no sooner pronounced, than the ass starts up, prances, and leaps for joy. The master then declares that his ass has been pitched upon by the warden of his street to carry his deformed and ugly wife; upon which the ass lowers his ears, and limps with one of his legs, as if he were lame. The master alleging that his ass admires handsome women, commands him to single out the prettiest lady in company; and accordingly he makes his choice, by going round and touching one of the prettiest with his head, to the great amusement of the spectators.'

This astonishing aptitude in the horse and ass is often directed to purposes more immediately useful to themselves. Thus, in 1794, a gentleman in Leeds had a horse which, after being kept up in the stable for some time, and turned out into a field where there was a pump-well supplied with water, regularly obtained a quantity therefrom by his own dexterity. For this purpose the animal was observed to take the handle into his mouth, and work it with the head, in a way exactly similar to that done by the hand of a man, until a sufficiency was procured. Again, horses have been taught to go to and from water or pasture by themselves, to open the gate, and otherwise to conduct themselves with a propriety almost human. have ourselves known a farm-boy, who was too small to mount the plough-horses, teach one of the team to put down its head to the ground, allow him to get astride its neck, and then, by gently elevating the head, to let him slip backwards to his seat on its back. This act we have seen done by the same horse a hundred times, and there was no doubt that the animal perfectly understood the wishes of the boy, and the use of its lowering the head for the purpose of his mounting.

GENERAL SAGACITY AND INTELLIGENCE.

It has been before remarked, that the horse is inferior to none of the brute creation in sagacity and general intelligence. In a state of nature, he is cautious and watchful; and the manner in which the wild herds conduct their marches, and station their scouts and leaders,

shews how fully they comprehend the necessity of obedience and order. All their movements, indeed, seem to be the result of reason. aided by a power of communicating their ideas far superior to that of most other animals. The neighings by which they communicate terror, alarm, recognition, the discovery of water and pasture. &c. are all essentially different, yet instantaneously comprehended by every member of the herd; nay, the various movements of the body, the pawing of the ground, the motions of the ears, and the expressions of the countenance, seem to be fully understood by all. In passing swampy ground, they test it with the fore-foot, before trusting to it the full weight of their bodies; they will strike asunder the melon-cactus to obtain its succulent juice with an address perfectly wonderful; and will scoop out a hollow in the moist sand in the expectation of its filling with water. All this they do in their wild state; and domestication, it seems, instead of deteriorating, tends rather to strengthen and develop their intelligence.

The Rev. Mr Hall, in his Travels through Scotland, tells of the Shetland ponies, that when they come to any boggy piece of ground—whether with or without their masters—they first put their nose to it, and then pat it in a peculiar way with their fore-feet; and from the sound and feeling of the ground, they know whether it will bear them. They do the same with ice, and determine in a minute whether they will proceed; and that with a judgment far more

unerring than that of their riders.

Their sagacity sometimes evinces itself in behalf of their companions, in a manner which would do honour even to human nature. M. de Boussanelle, a captain of cavalry in the regiment of Beauvilliers, mentions that a horse belonging to his company being, from age, unable to eat his hay or grind his oats, was fed for two months by two horses on his right and left, who ate with him. These two chargers, drawing the hay out of the racks, chewed it, and put it before the old horse, and did the same with the oats, which he was then able to eat. In 1828, Mr Evans of Henfaes, Montgomeryshire, had a favourite pony mare and colt, that grazed in a field adjoining the Severn. One day the pony made her appearance in front of the house, and, by clattering with her feet, and other noises, attracted attention. Observing this, a person went out, and she immediately galloped off. Mr Evans desired that she should be followed; and all the gates from the house to the field were found to have been forced open. On reaching the field, the pony was found looking into the river, over the spot where the colt was lying drowned.

The deepest cunning sometimes mingles with the sagacity of the horse, as evinced by the subjoined well-known anecdote. Forrester, the famous racer, had triumphed in many a severe contest; at length, overweighed and overmatched, the rally had commenced. His adversary, who had been waiting behind, was quickly gaining upon him; he reared, and eventually got abreast: they continued so

till within the distance. They were parallel; but the strength of Forrester began to fail. He made a last desperate plunge; seized his opponent by the jaw to hold him back; and it was with great difficulty he could be forced to quit his hold. Forrester, however, lost the race. Again, in 1753, Mr Quin had a racer which entered into the spirit of the course as much as his master. One day, finding his rival gradually passing him, he seized him by the legs; and both riders were obliged to dismount, in order to separate the infuriated animals, now engaged with each other in the most deadly conflict.

Professor Kruger of Halle relates the following instance of sagacity and fidelity, which we believe is not without parallel in our own country: A friend of mine was one dark night riding home through a wood, and had the misfortune to strike his head against the branch of a tree, and fell from his horse stunned by the blow. The horse immediately returned to the house which they had left, about a mile distant. He found the door closed, and the family gone to bed. He pawed at the door, till one of them, hearing the noise, arose and opened it, and to his surprise saw the horse of his friend. No sooner was the door opened than the horse turned round, and the man suspecting there was something wrong, followed the animal, which led him directly to the spot where his master lay on the ground in a faint. Equal in point of sagacity with this was the conduct of an old horse belonging to a carter in Strathmiglo, Fifeshire. From the carter having a large family, this animal had got particularly intimate with children, and would on no account move when they were playing among its feet, as if it feared to do them injury. On one occasion, when dragging a loaded cart through a narrow lane near the village, a young child happened to be playing in the road, and would inevitably have been crushed by the wheels, had it not been for the sagacity of this animal. He carefully took it by the clothes with his teeth, carried it for a few yards, and then placed it on a bank by the wayside, moving slowly all the while, and looking back, as if to satisfy himself that the wheels of the cart had cleared it. This animal was one of the most intelligent of his kind, and performed his duties with a steadiness and precision that were perfectly surprising.

The following manœuvre, which is related in most books on animal instinct, appears to us rather incredible; we transcribe it, however, without vouching for its accuracy further than the general circulation it has received: The island of Krütsand, which is formed by two branches of the Elbe, is frequently laid under water, when, at the time of the spring-tides, the wind has blown in a direction contrary to that of the current. In April 1794, the water one day rose so rapidly, that the horses which were grazing in the plain, with their foals, suddenly found themselves standing in deep water, upon which they all set up a loud neighing, and collected themselves

together within a small extent of ground. In this assembly they seemed to determine upon the following prudent measure, as the only means of saving their young foals, that were now standing up to the belly in the flood; in the execution of which some old mares also took a principal part, which could not be supposed to have been influenced by any maternal solicitude for the safety of the young. The method they adopted was this: Every two horses took a foal between them, and, pressing their sides together, kept it wedged in. and lifted up quite above the surface of the water. All the horned cattle in the vicinity had already set themselves afloat, and were swimming in regular columns towards their homes. But these noble steeds, with undaunted perseverance, remained immovable under their cherished burdens for the space of six hours, till the tide ebbing, the water subsided, and the foals were at length placed out of danger. The inhabitants, who had rowed to the place in boats, viewed with delight this singular manœuvre, whereby their valuable

foals were preserved from a destruction otherwise inevitable.

Respecting the intelligence of even the common work-horse, the least delicately treated of his kind, Mr Stephens, in his Book of the Farm, speaks in terms of high commendation. 'It is remarked,' says he, by those who have much to do with blood-horses, that when at liberty, and seeing two or more people standing conversing together, they will approach, and seem as it were to wish to listen to the conversation. The farm-horse will not do this; but he is quite obedient to call, and distinguishes his name readily from that of his companions, and will not stir when desired to stand, till his own name is pronounced. He distinguishes the various sorts of work he is put to; and will apply his strength and skill in the best way to effect his purpose, whether in the thrashing-mill, the care or the plough. He soon acquires a perfect sense of his work. [In ploughing] I have seen a horse walk very steadily towards a directing pole, and halt when his head had reached it. He seems also to have a sense of time. I have heard another neigh almost daily about ten minutes before the time of ceasing work in the evening, whether in summer or in winter. He is capable of distinguishing the tones of the voice, whether spoken in anger or otherwise, and can even distinguish between musical notes. There was a work-horse of my own, when even at his corn, would desist eating, and listen attentively, with pricked and moving ears, and steady eyes, the instant he heard the note low G sounded, and would continue to listen so long as it was sustained; and another that was similarly affected by a particular high note. The recognition of the sound of the bugle by a trooper, and the excitement occasioned in the hunter when the pack give tongue, are familiar instances of the power of horses to discriminate between different sounds: they never mistake one call for another.' It might also have been added, that work-horses seem fully to comprehend the meaning of the terms employed to direct

them—whether forward, backward, to the left, or to the right. A great deal of this gibberish might certainly be spared with advantage. as tending only to confuse the limited faculties of the animal: but still there is no doubt that a horse will obey the command to stop. to go on, or to swerve to either side, even should its master be hundreds of yards distant. Work-horses seem also to anticipate Sunday, perhaps partly from memory, and partly from noticing the preparations making for it. They are quick observers of any change that takes place around them; they can distinguish the footfall of the person who feeds them; and seem fully to understand, from the kind of harness put upon them, whether they are to be yoked in the mill, in the cart, or in the plough. Even when blind they will perform their accustomed operations with wonderful precision. We knew a blind coach-horse that ran one of the stages on the great north road for several years, and so perfectly was he acquainted with all the stables, halting-places, and other matters, that he was never found to commit a blunder. In his duties he was no doubt greatly aided by hearing and smell. He could never be driven past his own stable; and at the sound of the coming coach, he would turn out of his own accord into the stable-yard. What was very remarkable, so accurate was his knowledge of time, that though half-a-dozen coaches halted at the same inn, yet was he never known to stir till the sound of the 'Ten o'clock' was heard in the distance.

The manner in which the ass descends the dangerous precipices of the Alps and Andes is too curious and indicative of sagacity to be passed over without notice. It is thus graphically described in the Naturalist's Cabinet: 'In the passes of these mountains, there are often on one side steep eminences, and on the other frightful abysses; and as these for the most part follow the direction of the mountain, the road forms at every little distance steep declivities of several hundred yards downwards. These can only be descended by asses; and the animals themselves seem perfectly aware of the danger, by the caution they use. When they come to the edge of one of the descents, they stop of themselves, without being checked by the rider; and if he inadvertently attempt to spur them on, they continue immovable, as if ruminating on the danger that lies before them, and preparing for the encounter; for they not only attentively view the road, but tremble and snort at the danger. Having at length prepared for the descent, they place their fore-feet in a posture as if they were stopping themselves; they then also put their hinder feet together, but a little forward, as if they were about to lie down. In this attitude, having taken a survey of the road, they slide down with the swiftness of a meteor. In the meantime, all that the rider has to do is to keep himself fast on the saddle, without checking the rein, for the least motion is sufficient to destroy the equilibrium of the ass, in which case both must inevitably perish. But their address in this rapid descent is truly wonderful;

for, in their swiftest motion, when they seem to have lost all government of themselves, they follow the different windings of the road with as great exactness as if they had previously determined on the route they were to follow, and taken every precaution for their safety.'

The preceding anecdotes—which form but a mere fraction of what might be gleaned-exhibit some of the principal features in the. character of the horse, whose natural qualities have been matured and greatly developed by domestication. Man has trained him with care, for the value of his services; we wish we could add, that he uniformly treats him with kindness and consideration. 'The reduction of the horse to a domestic state,' says Buffon, 'is the greatest acquisition from the animal world ever made by the art and industry of man. This noble animal partakes of the fatigues of war, and seems to feel the glory of victory. Equally intrepid as his master, he encounters danger and death with ardour and magnanimity. He delights in the noise and tumult of arms, and annoys the enemy with resolution and alacrity. But it is not in perils and conflicts alone that the horse willingly co-operates with his master; he likewise participates in human pleasures. He exults in the chase and the tournament; his eyes sparkle with emulation in the course. But, though bold and intrepid, he suffers not himself to be carried off by a furious ardour; he represses his movements, and knows how to govern and check the natural vivacity and fire of his temper. He not only yields to the hand, but seems to consult the inclination of the rider. Uniformly obedient to the impressions he receives, he flies or stops, and regulates his motions entirely by the will of his master. He in some measure renounces his very existence to the pleasure of man. He delivers up his whole powers; he reserves nothing; and often dies rather than disobey the mandates of his governor.' If such be the principal features in the character of the horse—and they are universally admitted—the feelings of that individual are little to be envied who ever utters a harsh tone, draws a severe lash, or urges beyond his speed or strength an animal so willing and so obedient, and whose powers have been so essential to human progress.





ETER WILLIAMSON was bornat Hirnley, in the parish of Aboyne, Aberdeenshire, about the year 1730, if not of rich, yet of respectable parents; and but for an unfortunate circumstance, would most likely have lived and died like his ancestors, a humble Scottish peasant. When ten years of age, he was sent by his parents on a visit to his aunt in Aberdeen, already a town of rising commerce; and while here, an event occurred which altogether altered the course of his destiny. Having one day strolled down to the pier to look with childish curiosity on the shipping in the harbour, he was espied by two men belonging to a vessel lying alongside, and persuaded by them, without difficulty, to come on board and see the different parts of the ship.

From the deck he was invited to go below, and there he was introduced to the society of a number of children of similar age, who had all been inveigled on board on the same seductive promises as had

been held out to the luckless Peter.

The fact is curious, and in the present day it will scarcely appear credible, that these poor children were stolen in the manner described, and were now forcibly detained on board the vessel, till, the cargo being completed, the whole should be carried off and sold into bondage in the British-American plantations. That this should have taken place in one of the principal towns in Scotland little more than a century ago, without public remonstrance, may well excite our surprise; and it is still more remarkable that, so far from being an isolated case of oppression, it was only part of a regular trade carried on at Aberdeen—the trade of kidnapping young persons, to be sold into a species of slavery in America. evidence afterwards brought to light in consequence of Peter Williamson's abduction, it appears that at least two merchants were immediately concerned in this odious traffic, which was not unknown to the local magistracy, and, as was confidently believed, privately sanctioned by them. The trade was carried on under colour of No. 14.

indenturing apprentices for service in the plantations, where there was a demand for labour.* Lads, it seems, from time to time offered themselves as apprentices to go abroad; parents also, occasionally from the pressure of poverty, would bring a boy to be enlisted for this pretendedly desirable kind of employment; the magistrates, likewise, handed over all vagrant youths troublesome to the community who fell into their hands; and by these various means the exporters carried on a trade which does not seem to have been held as particularly infamous, though it is certain they did not scruple to make up their cargoes by the felonious abduction of children, and disposed of the whole on equal terms abroad as articles of merchandise. Extraordinary as such a revelation of the social state of Scotland little more than a century ago cannot but now appear, the practice of kidnapping was not confined to the remote towns of North Britain. At the period to which we refer, and much later, it was carried on in London and many other places under the name of crimping. In the metropolis there were regular offices for entrapping young men, who, pressed by temporary difficulties, and unacquainted with the world, were easily seduced by the keepers of these establishments to ship themselves for countries where they were to revel in numberless delights, but where, in reality, they were to be plunged into the miseries of compulsory servitude. In the feeble state of the press and of public opinion, these atrocities excited little attention, and were only the subject of occasional remark or satire by the novelists and dramatists of the day. † In time, the practice of crimping and kidnapping became too odious to be conducted with impunity, though till comparatively recent times the army and navy were habitually recruited by means not more reputable; nor are we sure that the custom of employing intoxicating drinks as an agent of enlistment is yet abandoned, or the race of Sergeant Kites altogether extinct.

From this digression we return to the unfortunate subject of our memoir. The trade of the Aberdeen kidnappers was conducted with so little fear of legal impediment, that Peter Williamson and the other entrapped children were transferred from the vessel to a barn in the neighbourhood, there to remain in seclusion till the required

* It is proper to state that our authority here and generally elsewhere in our narrative

[&]quot;It is proper to state that our authority here and generally elsewhere in our narrative is the memoir of Peter written by himself, under the title of French and Indian Cruelty exemplified in the Life and Various Vicissitudes of Fortune of Peter Williamson, who was carried off from Aberdeen in his infancy, and sold as a Slave in Pennsylvania; with a Dissertation on Kidnapping, &c. Fifth edition, enlarged [Edinburgh, 1762].

† The story of George, the son of the Vicar of Wakefield, will here occur to remembrance, Going along the streets of London in a state of desperation, and with only half-aguinea in the world, he tells us 'it happened that Mr Crispe's office seemed invitingly open to give me a welcome reception, In this office Mr Crispe's office seemed invitingly open to give me a welcome reception, In this office Mr Crispe's office seemed invitingly open to give me a welcome reception, for this office Mr Crispe's office seemed invitingly open to give me a welcome reception, for which promise all there give in return is their liberty for generous promise of £30 a year, for which promise all they give in return is their liberty for life, and permission to let him transport them to America as slaves. Great things were promised by Mr Crispe to George, who, however, escaped the gulf prepared for him. Mr Crispe was doubtless a type of the distinguished crimps of the day.

number of youths was complete. The disappearance of her nephew alarmed the aunt; and, communicating the intelligence and her suspicions to his father, James Williamson, at Hirnley, he forthwith came to Aberdeen in quest of his lost child. Here having learned from public rumour that a number of youths were confined in a barn previous to their deportation to America, he proceeded to the spot, but was unable to gain admittance, nor was he permitted to see or speak to his son. James, from all we can learn of the strange transaction, now abandoned the search as hopeless, and went home to the disconsolate mother of his child. That he should have thus tamely submitted to be robbed of his son, may appear the height of pusillanimity; but any one acquainted with the partial administration of justice in Scotland at the period to which we refer, will feel no surprise at the whole tenor of the narrative. According to the testimony of an individual who was afterwards examined respecting the transaction, the barn at the time contained from forty to fifty young persons of different ages, voluntary and compulsory candidates for transportation; and, while carefully watched, to prevent escape, the whole were kept in a state of constant merriment by the well-plied strains of a bagpipe.

The complement of youths being made up, Peter sailed with his associates in misfortune from the harbour of Aberdeen in about a month from the time of his abduction, without any precise idea as to his fate, and all fears soothed by the deceitful promises of his captors. His departure, it is to be presumed, took place some time in 1740. The vessel was bound for Philadelphia, and the early part of the voyage passed off without any untoward event; but in approaching the American coast, a hard gale of wind sprung up from the south-east, and the captain not having kept a good reckoning, the vessel, to his surprise, struck about midnight on a sand-bank off Cape May, near the capes of the Delaware. All was now consternation on board; and, to the terror of the children and youths in the hold, the water gradually increased upon them, and threatened them all with destruction. Believing that the ship could not long hold together, the sailors hoisted out the boat, into which they went with the captain, leaving Peter, with his companions, as was imagined, to perish.

Deserted, without the least prospect of relief, but threatened every moment with destruction, the kidnapped youths and children passed the night in inconceivable distress and apprehensions. It may be readily supposed that no little relief was experienced when, as the morning broke, and the weather moderated, it was observed that the ship, instead of sinking deeper in the water, was fixed on a sandbank, at the distance of about a mile from land. The wind continuing to abate, and the tide proving favourable, the recreant crew, who had for some hours been on shore, ventured out to their deserted craft, with the hope of saving at least part of the cargo.

The first thing done was to convey on shore the distracted children, sixty-five in number, who were clinging in desperation to the bulwarks and shrouds of the vessel; and this being accomplished, a kind of encampment was struck up with tents made of the sails, and such other things as could be got readily ashore. Some provisions were also saved; but the general cargo was lost, and the ship in a few days went entirely to pieces. In the encampment which was formed, the party spent about three weeks, anxiously waiting for an opportunity of proceeding to Philadelphia, and such at length occurred by the passing of a friendly vessel, in which the whole were taken on board.

The party arrived in Philadelphia without encountering any new misfortune; and soon after landing, the youths and children were offered for sale to those in want of servants. The speculation, in a pecuniary sense, proved a fortunate one for the captain, for a number of persons coming to look at his stock, he was able to dispose of the whole he had on hand, at from £12 to £20 a head. It must be presumed that this transaction, villainous as it now appears, could not, as part of a regular trade, escape the notice of the colonial government; yet it attracted no attention from any of the public authorities, and Peter and his companions were accordingly disposed of to different parties, with as little regard for their feelings as if they had been so many cattle. The transfer, however, was not for permanent bondage, but only a limited series of years; and so far it differed from the more hapless conditions of negro slavery, which at the time was a legally protected institution in all the British possessions. Peter was sold for seven years, and, as he says, brought £16, a sum which left a handsome return for the trifling expense of his passage and keep since the day of his capture. He was fortunate in being bought by a countryman, Hugh Wilson, a native of Perth, who, having been kidnapped himself, could compassignate the fate of others subjected to the same calamity.

It was altogether a lucky turn of affairs which brought our hero into the hands of his countryman. Mr Wilson, unlike many of his neighbours, was a humane, worthy, and honest man. Having no children of his own, and commiserating Peter's unhappy condition, he received him into his family, and with much care caused him to be instructed in labours suited to his age and prospects. With still more considerate kindness, he gave Peter opportunities to attend school during the winter months, by which means, and by dint of persevering efforts during leisure hours at home, he acquired a facility in reading and writing, and generally improved his stock of ideas. Five years passed over, and Peter, now become a stout lad, was useful as a labourer on his master's farm, where he acquired a knowledge of husbandry, and gained general approbation for his steady and trustworthy habits. When seventeen years of age, he lost his indulgent master, an event which he had some reason to

lament; but his grief was assuaged by finding that, as a reward for his faithful services, he had been bequeathed his liberty, besides a legacy of £200 currency, also his master's horse and

wearing apparel.

Thrown upon the world, and now his own master, Peter bethought himself how much more advantageous it would be to remain in America, where labour was in demand, and well remunerated, than to return to his native country. He accordingly hired himself to parties who needed his services, and in this way, always husbanding his gains, he spent seven years among the farmers of

Pennsylvania.

Thinking now that he had gained sufficient experience of rural affairs, and accumulated a sufficient capital, he resolved to settle on some advantageous spot; but considering that a farmer without a wife makes but a poor shift, he deemed it to be an essential preliminary to be married. In this important adventure Peter was peculiarly fortunate, for his addresses were favoured by the daughter of a wealthy landowner and agriculturist in Chester county, and there being no objection to the match, they were accordingly married. The next consideration was the selection of a parcel of land: on this point, however, he was spared all difficulties, his father-in-law making him a deed of gift of a tract of land in Perk's county, on the borders of Pennsylvania, near the forks of the Delaware. The property consisted of about two hundred acres, thirty of which were cleared and fit for immediate use, and provided with a good house and barn.

The prospect of a journey to such a distant part of the settlements was somewhat serious, for the country was in many places not yet cleared of the original forest; rivers were to be forded; and not the least formidable danger lay in the chance of encountering a roaming and hostile band of native Indians. But Peter's heart was buoyant; he was to be accompanied by a young and active wife accustomed to life in the settlements, and his father-in-law declared that they should not leave him empty-handed. The young couple were accordingly presented with a stout wagon, covered with a light canvas awning, as a shelter from the sun by day and the dews by night. Into the wagon, which was drawn by a pair of New-England horses, many little comforts were crammed by the friends of the newly wedded pair; nor were there forgotten a rifle and small piece for use in killing game in case of need.

It was a bright morning in early spring as Peter, with his cavalcade, departed from Mount Hiram, his father-in-law's abode, on his travels towards what was to be his new and perhaps permanent home. A little touch of sorrow, not unaccompanied with anxiety as to the future, was experienced by Rose on leaving her father's comfortable dwelling, the home of her childhood; but it was only for a moment. Her husband, buoyant with hope, acting as driver of the

team, smacked his long whip, the horses bent their necks to the draught, and off the wagon rolled on its way. It would have been impossible to be dull in such a scene. The air, fresh and delightful, was lighted up by the cheerful rays of the sun just newly risen; the wild turkeys ran in and out beneath the bushes, startled by the approach of the wagon; the shrill whistle of the red-bird piped through the woods; and from the depths of the green magnolias

came the frequent and interesting cry of the whip-poor-will.

The first night the party rested at the hospitable abode of Mrs Williamson's maternal uncle, a farmer of Dutch origin from the neighbourhood of New York, who kindly gave them some presents at parting. One of these acceptable gifts was a young cow, whose milk promised to be a great solace on the journey, though the guiding of the animal would insure some degree of trouble. On the second and third nights Peter and his wife were accommodated at the houses of settlers; but on the fourth, the clearings being now remote from each other, they were compelled to bivouac in the open air. The horses were unyoked and staked, a few small trees were cut down with the axe to form a species of palisade around the encampment. Some dry boughs were likewise collected to form a fire in the centre, and on this was prepared the evening meal, consisting of steaks of a young fawn which had been fortunately shot by Peter in passing through the thickets. With the addition of tea, for which the cow yielded some fresh milk, and cakes of Indian corn, their meal was quite a feast in the wilderness.

By keeping up the fire, and exercising some degree of watchfulness, Peter hoped to avert any molestation either from wild animals or Indians, and, with his rifle primed and ready for service, he occasionally during the night gave a scrutinising look round his encampment. Fortunately the night passed quietly away, and the neighing of the horses, with the cries of numerous birds in the woods, gave token of the fast coming day. Again was the wagon yoked, everything packed away, and the party on the march. This day a pretty broad stream, the largest they had yet encountered, was crossed with some difficulty: they were, however, assisted by a settler on horseback, who overtook them on their journey; and by this person, who was going in the same direction, they were accom-

panied till they reached their new home.

It would occupy too much space to describe Peter's various arrangements with respect to his farm; suffice it to say, that what with buying stock, household furniture, and implements of husbandry, a large share of his funds was dispensed, and some time consumed. In everything he was assisted by the counsel of his beloved Rose, who was quite a pattern of a managing New-England wife. In six months from the period of his arrival, with the assistance of hired labourers, nine more acres were cleared of timber, and a plenteous crop of wheat was taken from the ground which had previously been

in cultivation. At the close of autumn, Peter sat down a happy and prosperous American farmer; and had occasion to bless God for having out of evil wrought to him so much good.

A TURN IN PETER'S AFFAIRS.

The period of Williamson's settlement in the more remote parts of Pennsylvania was peculiarly unpropitious. The frontiers of that and the other New-England colonies were constantly harassed by parties of Indians, who came to attack the whites partly on their own account, and partly under the orders of the French, who had possession of Canada and Louisiana, and had formed a resolution of hemming in the English within a comparatively narrow strip of land bordering on the Atlantic. Without any such incitement, the Indian tribes were animated by a deadly hatred of the English colonists, who for the most part had taken their lands from them on

no other plea than that of superior force.

The tribes who thus more immediately pressed on the English frontiers were the Algonquins and Mohegans, with the Delaware Indians, or Lenni Lenape, besides various races of lesser importance. Though occasionally punished for their incursions, and thinned in their numbers, they may be said to have maintained a constant petty war against the white intruders. Sometimes breaking a treacherous truce, they would suddenly leave their remote retreats in the wilderness, and appearing within the clearings of the English settlers, burn and destroy all the houses in their path, and either murder and scalp their unhappy inmates, or carry them off for a worse fate as prisoners. After such incursions, a series of bloody encounters usually ensued. The colonists, roused to a sense of danger, and animated by revenge, would hastily arm and pursue the savages to their homes; terrible battles took place; and peace, achieved by bloodshed, only continued till a new opportunity occurred for aggression. Restrained by no considerations of mercy, and glorying in the number of scalps which they could carry off as trophies of their bravery, the Indians inflicted the most horrible barbarities on those who fell into their hands. The stories told, therefore, of their incursions present the most afflicting details of suffering, relieved only by the heroism of settlers in defending their possessions, or in enduring the tortures of which they were the victims.

Peter Williamson, settled on his farm on the frontiers of Pennsylvania, was exposed to one of these sudden and terrific onslaughts. The autumn of 1754 had passed away, and been succeeded by the chills of October, when one evening Mrs Williamson, with the only servant resident in the house, went on a visit to the house of a neighbour at the distance of five or six miles. Peter alone remained

at home to finish some necessary work which he had on hand, when, at a late hour, he was roused by a shout outside the dwelling:

> 'Whoop after whoop with rack the ear assailed, As if unearthly fiends had burst their bar.'

As a precaution, in case of some such attack, the door of the house had been fastened. Proceeding to an upper window, Peter perceived, to his surprise and horror, that the house was surrounded by a band of hostile Indians, twelve in number. He demanded what they wanted; but heedless of his inquiry, they commenced to beat in the door; and finding this more difficult than they expected, they told him in broken English that unless he came out they would set it on fire, and burn him in the midst of it. The party besieged threatened in turn to fire upon them if they did not desist; but this was a vain expedient, for already several of the band were knocking in a window behind. Finally, concluding that the safest course was surrender, and an attempt at conciliation, Peter opened the door

and yielded himself prisoner.

A scene of savage vengeance succeeded. Peter was instantaneously seized and bound to a tree; the house was plundered of its more valuable contents; and to conclude the catastrophe, the dwelling, and also the barn and other outhouses, containing at the time two hundred bushels of wheat, six cows, four horses, and five sheep, were consumed in one conflagration. Having perpetrated this atrocity, one of the Indians approached their victim with a tomahawk, or small hatchet, and gave him his choice of instant death or of going along with the party and assuming the Indian mode of living. Adopting what he imagined to be the least of two evils, he agreed to go with his captors, and submit to any of their usages. being quite satisfactory, he was loaded with spoils from his own dwelling, and marched off with the party in a direction towards the uncleared country. Not allowed a moment to rest, he was urged on during the whole night, less afflicted, however, with physical tortures. than anxieties respecting the fate of his unhappy wife, who might possibly have fallen into the hands of another band of these merciless marauders.

At daybreak, the Indians came to a halt, and Peter having laid down his burden, was again tied to a tree with a small cord; submitting with fortitude to his fate, whatever it might chance to be. It was no part of the plan of the savages to kill their helpless victim. Reserved as a useful drudge in carrying their spoils, he was only secured from flight. Having kindled a fire, and cooked some victuals, a part of which they gave their prisoner, they again set out on their journey, carefully avoiding those places where traces of their progress could be distinguished. Proceeding along by the river Susquehanna, their captive still laden with articles from his own dwelling, the party arrived at a spot near the Appalachian Mountains,

where they attacked another house, killing all the inmates except one, and burning all the outhouses with their contents. The person spared was a young man, who, like Peter, was destined to carry the plunder which had been secured. His services, however, were brought to a speedy termination. Unable to restrain his grief, which manifested itself in tears and moans, he excited the anger of his captors, who, by the blow of a tomahawk, put an end to his sufferings. Skulking about for four or five days, watching for new victims, they attacked another house; and, after committing similar ravages as before, they marched on, dragging Peter along with them, till they arrived at an Indian village, where the party proposed to remain during the winter.

The arrival of the party at their winter-quarters put an end for a time to Peter's bodily toils and fears, and he was now left in a great measure to his own resources, but without the privileges attending a state of liberty. None of the Indian families taking a fancy to shew hospitality towards him, he was under the necessity of erecting a small wigwam with the bark of trees, covering the whole with earth; and to allay the cold, he kept a fire constantly burning at the entrance of his hut. The only means at command for appeasing his hunger consisted of scraps of meat offered by his captors, along with

a little roasted Indian corn.

When he took up his residence in the village, his clothes were in rags, and his shoes gone; and now his only resource was to adopt such portions of Indian attire, made chiefly of the hides of wild animals, as he could extort from the compassion of the tribe. Living in this precarious and far from satisfactory manner among the Indians for several months, he endeavoured to banish the vexations which would press upon his remembrance, by studying the manners and customs of this singular people, and acquiring some little knowledge of their language. From the account which he afterwards gave of them, and additional information conveyed by later observers, we derive the following view of this extraordinary race.

CHARACTER AND ANECDOTES OF THE INDIANS.

The Indians of North America are presented to us in a great variety of tribes, all less or more differing from each other in appearance, dress, and language, yet all of a bronze or copper colour, with straight, coarse, black hair, hazel eyes, high cheek-bones, and an erect form. In their social arrangements, they are wild and intractable; each tribe lives and migrates apart from the others; and, subsisting principally by the chase, they do not take willingly to agriculture, or any other kind of settled labour. Besides hunting buffaloes, and other beasts of the forest and open country, wars of one tribe against another seem to form a constant and disastrous No. 14.

occupation. Each tribe is led to war by a chief who is considered the most brave; but, except on their warlike excursions, there is nothing like formal government. While dwelling in peace in their villages, there is, in reality, no kind of jurisdiction amongst them. All are equal; but in cases of importance demanding the consideration of the tribe, a council is gravely held by the seniors and warriors,

the assembly being open to all who please to take a part.

One of their most remarkable traits of character is the air of haughty indifference and contempt with which they view every object of interest presented to their notice by the whites. Their guiding rule is to be surprised at nothing which can occur; and, unless when roused by warlike emotions, to be circumspect and deliberate in every word and action. If an Indian has been engaged for several days in the chase, and by accident continued long without food, when he arrives at the hut of a friend, where he knows his wants will be immediately supplied, he takes care not to shew the least symptoms of impatience, or betray the extreme hunger that he is tortured with; but, on being invited, sits contentedly down, and smokes his pipe with as much composure as if his appetite was cloyed, and he was perfectly at ease. He does the same thing among strangers. This reserve is strictly adhered to by every tribe, as they esteem it a proof of fortitude, and think the reverse would

entitle them to the appellation of old women.

The same uncompromising sentiment of self-esteem leads them to endure fatigues and bodily torments not only with fortitude, but the most contemptuous unconcern. On one occasion a party of the Seneca Indians came to war against the Katahba, bitter enemies to each other. In the woods the former discovered a sprightly warrior belonging to the latter hunting in his usual light dress. On perceiving them, he sprang off for a hollow rock four or five miles distant, as they intercepted him from running homeward. He was so extremely swift and skilful with the gun, as to kill seven of them in the running-fight before they were able to surround and take him. They carried him to their country in sad triumph; but though he had filled them with uncommon grief and shame for the loss of so many of their kindred, yet the love of martial virtue induced them to treat him, during their long journey, with much more civility than if he had acted the part of a coward. When brought to the camp of his enemies, he was condemned to be tortured and put to death. The victim, however, had resolved to baffle his captors. When taken to the place of torture, which lay near to a river, he suddenly dashed down those who stood in his way, sprang off, and plunged into the water, swimming underneath like an otter, only rising to take breath, till he reached the opposite shore. He now ascended the steep bank; but though he had good reason to be in a hurry, as many of the enemy were in the water, and others running, very like bloodhounds, in pursuit of him, and the bullets flying around him from

the time he took to the river, yet his heart did not allow him to quit them abruptly, without taking leave in a formal manner, in return for the extraordinary favours they had done, and intended to do him. After shouting a defiance to them, he put up the shrill war-whoop as his last salute, till some more convenient opportunity offered, and darted off in the manner of a beast broke loose from its torturing enemies. He continued his speed, so as to run by about midnight of the same day as far as his eager pursuers were two days in reaching. There he rested, till he happily discovered five of those Indians who had pursued him. He lay hid a little way off their camp till they were sound asleep. Every circumstance of his situation occurred to him, and inspired him with heroism. He was naked, torn, and hungry, and his enraged enemies were come up with him; but there was now everything to relieve his wants, and a fair opportunity to save his life, and get great honour and sweet revenge by cutting them off. Resolution, a convenient spot, and sudden surprise would effect the main object of all his wishes and hopes. He accordingly crept forward, took one of their tomahawks, and killed them all on the spot; clothed himself, took a choice gun. and as much ammunition and provisions as he could well carry in a running march. He set off afresh with a light heart, and did not sleep for several successive nights, except when he reclined as usual a little before day, with his back to a tree. As it were by instinct, when he found he was free from the pursuing enemy, he made directly to the very place where he had killed seven of his enemies. and had been taken by them for the fiery torture. He digged them up, burnt their bodies to ashes, and went home in safety with singular triumph. Other pursuing enemies came, on the evening of the second day, to the camp of their dead people, when the sight gave them a greater shock than they had ever known before, and they returned home quite dispirited.

It is remarkable that, with all their natural or assumed austerity and disregard of dangers, the Indians are the vainest beings in existence. A young Indian warrior has been stated to be notoriously the most thoroughgoing beau in the world. The streets of London or New York furnish no subjects willing to undergo so much lacing and confinement in order to appear in full dress. One of these young Indians has been observed to occupy three full hours in painting himself fancifully with colours, adjusting his tufts of hair, and contemplating from time to time, with visible satisfaction, the progress of his growing attractions. When he has finished, the proud triumph of irresistible charms is seen in his eye. The chiefs and warriors, in full dress, have one, two, or three broad clasps of silver about their arms; generally jewels in their ears, and often in their noses; and nothing is more common than to see a thin circular piece of silver, of the size of a dollar, depending from their nose, a little below the upper lip. Nothing shews more clearly the love of finery

-the love of something by which to gain admiration-which is inherent in mankind. The silver nose-ornament, which to us appears so ugly, and must be very inconvenient to the wearer, seems to be the utmost finish of Indian taste. Porcupine quills, stained by different colours, are twisted in their hair; and in one or more tribes a great cumbrous hat or chaplet of feathers is worn by way of full dress. It is customary to shave a part of the head, leaving a long tuft at the crown, and with this are sometimes twisted the tails of animals, to hang down behind. A circle of red berries, or small shells, called a belt of wampum, surrounds the neck, beneath which depends a necklace of alligators' teeth, or claws of the wild eagle. The clothes or skins which cover the body, and the skin moccasins of the legs, are also covered with equally strange decorations; among which, on warlike occasions, are ostentatiously hung the scalps which the wearer has savagely torn from the heads of the unfortunate beings he has slain.

Figurative in their language, the Indians are also figurative in many of their international usages. In soliciting the alliance, offensive or defensive, of a whole nation, they send an embassy with a large belt of wampum and a bloody tomahawk, inviting them to come and feast on the blood of their enemies. On similar occasions they are known to employ a calumet, or pipe, which they despatch, decorated with red feathers and other ornaments. If peace be their object, they invite those who have been their enemies to come and smoke the pipe in token of friendly intercourse. The bowl of the calumet is made of a kind of soft red stone, which is easily wrought and hollowed out; the stem being of cane, alder, or some kind of light wood, painted and decorated. At their peace convocations they sometimes formally bury a hatchet, as symbolical of the cessa-

tion of war between the parties.

The duty of the men is to fight and provide food, and on the women devolve all ordinary labours. The use of the axe or hoe is considered beneath the dignity of the male sex. It belongs to the females to plant corn where agriculture is carried on, to make and mend garments and moccasins, to build huts, to pitch tents, cut wood, to tend horses and dogs, and on a march to carry the baggage. The women do not murmur at this, but consider it a natural and equal distribution of family cares. But they are considered as an inferior race, and often transferred as property. Polygamy is general. Every man has as many wives as he can support, and in marriages the will of the bride is seldom or never consulted. A man addresses himself indirectly to the parents of his intended wife, and her fate depends on their will. The custom of dowry is reversed among Indians; the man makes certain presents to the parents of his wife, instead of receiving a portion with her. The marriage-ceremony is very simple, and in most tribes there is none at all. Divorces are frequent, and at the pleasure of the contracting parties; and it is

no uncommon thing to see an Indian woman who has been five or six times repudiated before she finally settles in life.

All the Indian tribes believe in one Supreme God and the immortality of the soul. They attribute all good and all power to the Supreme Being. Many tribes also believe in the existence of an intelligent evil principle, whose ill offices they endeavour to avert by prayer and sacrifice. They never ask the Supreme Being for anything, but merely return thanks for benefits received, saving that he is the best judge of what is for their advantage. They possess numerous superstitions, attributing supernatural powers to all serpents, especially rattlesnakes, and paying religious honours to rocks and venerable objects. They believe that all the lower animals have immortal souls as well as men; and, in short, that all nature teems with spirits. In their belief sorcery and charms are blended with the healing art, and their priests are also physicians and jugglers. Although believing in the immortality of the soul, their general idea of a future state refers to the delights of the chase and other materialities. In many tribes, men have what they call their medicine bags, which are filled with bones, feathers, and other rubbish. To the preservation of their medicine bags they attach much importance. Besides this, each holds some particular animal in reverence, which he calls his medicine—a word introduced by the French colonists—and which he can on no account be induced to kill, or eat when killed, for fear of some terrible misfortune.

Proud, haughty, revengeful, and superstitious, the Indians are yet faithful to their promise. One of the first settlers in Western New York was Judge W., who established himself at Whitestown, about four miles from Utica. He brought his family with him, among whom was a widowed daughter with an only child—a fine boy about four years old. In this wild spot, Judge W. saw the necessity of keeping on good terms with the Indians; for, as he was nearly alone, he was completely at their mercy. Accordingly, he took every opportunity to secure their good-will. Several of the chiefs came to see him. and all appeared pacific. But there was one thing that troubled him; an aged chief of the Seneca tribe, and one of great influence. who resided at a distance of about six miles, had not been to see him, nor could he by any means ascertain the feelings and views of the sachem in respect to his settlement in that region. At last he sent him a message, and the answer was, that the chief would visit him on the morrow.

True to his appointment, the sachem came. Judge W. received him with marks of respect, and introduced his wife, his daughter, and the little boy. The interview that followed was deeply interesting. Upon its result the judge considered that his security might depend, and he was therefore exceedingly anxious to make a favourable impression upon the chief. He expressed to him his desire to settle in the country, to live on terms of amity and good-fellowship

with the Indians, and to be useful to them by introducing among them the arts of civilisation.

The chief heard him out, and then said: 'Brother, you ask much, and promise much. I must have a pledge of your sincerity. Let this boy go with me to my wigwam; I will bring him back in three

days with my answer.'

If an arrow had pierced the bosom of the mother, she could not have felt deeper the pang that went to her heart as the Indian made this proposal. She sprang from her seat, and rushing to the boy who stood at the side of the sachem, looking into his face with pleased wonder and admiration, she encircled him in her arms, and was about to fly from the room. A gloomy and ominous frown came over the sachem's brow, but he did not speak. The judge knew better than his daughter, and delivered up the boy. The ensuing three days were spent in an agony of feeling by the mother, and Judge W. walked to and fro, going every few minutes to the door, looking through the opening in the forest towards the sachem's abode.

At last, as the rays of the setting sun were thrown upon the tops of the forest around, the eagle feathers of the chieftain were seen dancing above the bushes in the distance. He advanced rapidly, and the little boy was at his side. He was gaily attired as a young chief, his feet being dressed in moccasins; a fine beaver skin was over his shoulders, and eagle feathers were stuck in his hair. He was in excellent spirits, and so proud was he of his honours, that he seemed two inches taller than before. He was soon in his mother's arms, and in that brief minute she seemed to pass from death to life. It was a happy meeting—too happy to be described.

'The white man has conquered!' said the sachem; 'hereafter let us be friends. You have trusted the Indian; he will repay you with confidence and friendship.' He was as good as his word; and Judge W. lived there many years, laying the foundation of a flourishing

and prosperous community.

All Indians are most ingenious in their contrivances. It has been said, that if an Indian were driven out into the extensive forests with only a knife and a tomahawk, he would fatten where a wolf would starve. He would soon collect fire by rubbing two dry pieces of wood together, make a bark hut, earthen vessels, and a spear, bow, and arrows; then kill game, fish fresh-water tortoises, gather a plentiful variety of vegetables, and live in abundance. Roving constantly about in the woods and open country, they acquire great swiftness of foot, and will outrun the most practised pedestrian among the whites. Nevertheless, there are instances of their being matched in this respect by those hardy Anglo-American hunters who frequent the western country for the purpose of trapping beavers and other fur animals. A number of years ago, John Colter, one of these hunters, had occasion to match himself in a race of a some-

what serious nature with a party of Blackfeet Indians. The incident took place at the head-waters of the Missouri, where he was trapping in company with a hunter named Potts. Aware of the hostility of the Blackfeet tribe, they proceeded with great caution, setting their beaver-traps at night, and taking them up in the morning, and remaining concealed during the day. Early one morning they were examining their traps in a creek about six miles from that branch of the Missouri now called Jefferson's Fork, and were ascending in a canoe, when they suddenly heard a great noise, resembling the trampling of animals; but they could not ascertain the fact, as the high perpendicular banks on each side of the river impeded their view. Colter immediately pronounced it to be occasioned by Indians, and advised an instant retreat; but was accused of cowardice by Potts, who insisted that the noise was caused by buffaloes, and they proceeded on.

In a few minutes afterwards their doubts were removed by a party of Indians making their appearance on both sides of the creek, to the amount of five or six hundred, who beckoned them to come ashore. As retreat was now impossible, Colter turned the head of the canoe, and at the moment of its touching, an Indian seized the rifle belonging to Potts; but Colter, who was a remarkably strong man, retook it immediately, and handed it to Potts, who remained in the canoe, and, on receiving it, pushed off into the river. He had scarcely quitted the shore when an arrow was shot at him, and he cried out: 'Colter, I am wounded.' Colter remonstrated with him on the folly of attempting to escape, and urged him to come ashore. Instead of complying, he instantly levelled his rifle at the Indian, and shot him dead on the spot. This conduct, situated as he was, may appear to have been an act of madness; but it was doubtless the effect of sudden but sound reasoning; for, if taken alive, he must have expected to be tortured to death, according to their custom. He was instantly pierced with arrows, so numerous, that, to use Colter's words, 'he was made a riddle of.' They now seized Colter, stripped him entirely naked, and began to consult on the manner he should be put to death.

They were first inclined to set him up as a mark to shoot at; but the chief interfered, and seizing him by the shoulder, asked him if he could run fast. Colter, who had been some time amongst the Keekatso or Crow Indians, had in a considerable degree acquired the Blackfeet language, and was also well acquainted with Indian customs. He knew that he had now to run for his life, with the dreadful odds of five or six hundred against him, and those armed Indians; he therefore cunningly replied that he was a very bad runner, although he was considered by the hunters as remarkably swift. The chief now commanded the party to remain stationary, and he led Colter out on the prairie three or four hundred yards, and released him, bidding him save himself if he could.

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At this instant the horrid war-whoop sounded in the ears of poor Colter, who, urged with the hope of preserving his life, ran with a speed at which himself was surprised. He proceeded towards the Jefferson Fork, having to traverse a plain six miles in breadth, abounding with prickly pear, on which he was every instant treading with his naked feet. He ran nearly half-way across the plain before he ventured to look back over his shoulder, when he perceived that the Indians were very much scattered, and that he had gained ground to a considerable distance from the main body; but one Indian, who carried a spear, was much before all the rest, and not more than ninety or one hundred yards from him. A faint gleam of hope now cheered the heart of Colter: he derived confidence from the belief that escape was within the bounds of possibility; but that confidence was nearly fatal to him, for he exerted himself to such a degree, that the blood gushed from his nostrils, and soon almost

covered the forepart of his body.

He had now arrived within a mile of the river, when he distinctly heard the appalling sound of footsteps behind him, and every instant expected to feel the spear of his pursuer. Again he turned his head. and saw the savage not twenty yards from him. Determined, if possible, to avoid the expected blow, he suddenly stopped, turned round, and spread out his arms. The Indian, surprised by the suddenness of the action, and perhaps by the bloody appearance of Colter, also attempted to stop. But, exhausted with running, he fell whilst endeavouring to throw his spear, which struck in the ground and broke. Colter instantly snatched up the pointed part, with which he pinned him to the earth, and then continued his flight. The foremost of the Indians, on arriving at the place, stopped till others came up to join them, when they set up a hideous yell. Every moment of time was improved by Colter, who, although fainting and exhausted, succeeded in gaining the skirting of the cotton-wood trees, on the borders of the Fork; through this he pushed, and plunged into the river. Fortunately for him, a little below this place there was an island, against the upper end of which a raft of drift timber had lodged. He dived under the raft, and, after several efforts, got his head above water among the trunks of the trees, covered over with smaller wood to the depth of several feet. Scarcely had he secreted himself, when the Indians arrived at the river, screeching and yelling in a terrific manner. They were frequently on the raft during the day, and were seen through the chinks by Colter, who was congratulating himself on his escape, until the idea arose that they might set the raft on fire. In horrible suspense, he remained until night; when, hearing no more of the Indians, he dived a second time under the raft, and swam silently down the stream to a considerable distance, where he landed, and travelled all night.

Although happy in having escaped from the savages, his situation

was still dreadful: he was completely naked; the soles of his feet were stuck full with spines of the prickly pear; he was hungry, and had no means of killing game, though tantalised with plenty around him; and he was at least seven days' journey from Lisa's Fort, on the Big Horn branch of the Rocke Jaune river. These were circumstances under which almost any man but an American hunter would have sunk in despair; yet he arrived at the fort in seven days, having subsisted on a root much esteemed by the Indians of the Missouri. And here we end the perilous tale.

The tedium of inaction while encamped is sometimes relieved by games of chance, and also by feats of agility, and the sport of ballplay, in which some hundreds engage at a time in eager contest for The Indians have also various dances, performed to superiority. the beating of a tambourine or small drum, and to all of which they are extravagantly attached. Thus they have the Feast, the Scalp, the Dog, and the War Dance; also a dance in honour of the growing Indian corn, called the Corn-dance, and which they perform with green stalks in their hands. All these dances are little else than violent pounding of the feet on the ground, and, accompanied with the monotonous beating of the drum, and the wild gesticulations and chattering of the dancers, are most ungainly. The most significant of these barbarous performances is the war-dance, which usually takes place before going on a warlike expedition. The warriors, painted and prepared for battle, with their tomahawks and scalpingknives, assemble at a convenient spot in the village, where they are surrounded by all the inhabitants of the different lodges, as spectators of the ceremony. A post being firmly planted in the ground near the circle formed by the dancers and spectators, a rude kind of music is struck up by drummers, and the warriors commence dancing in a slow measured step, uttering sounds in unison with the beating of the drums. From a slow they proceed to a quick step, increasing their energy, and working themselves gradually up to a pitch of savage fury. Louder and louder becomes their discordant chant, quicker and quicker is the motion of their limbs. The arms of the dancers are thrown wildly about, they brandish their weapons. and yells escape from their lips. Arrived at a state of seeming frenzy, a dancer leaves the circle, and with his glancing tomahawk strikes the post. In a moment all is hushed, and the warrior who has thus signalised himself commences an oration, in which his own achievements are the theme. He enlarges on the battles in which he has fought, what prisoners he has captured, what number of persons he has slain, pointing at the same time to the withered scalps which dangle as ornaments from his attire. If he has received wounds, he shews them; and any remarkable encounter in which he has been engaged forms a subject of pantomimic representation. Having finished his harangue, he is succeeded by another; and so on in succession, till the party, all animated with

the same deadly purpose, are ready to rush away on their sanguinary

expedition.

Apart from the wild ferocity of his disposition, the Indian is, on the whole, a noble savage, and possesses many admirable qualities. With few exceptions, however, they display an untameableness which dooms them to extirpation. It is to be lamented that from the white colonists, who have robbed them of their territories, they have acquired the vices without the benefits of civilisation. Whisky and rum introduced among them, under the appropriate name of fre-water, have caused frightful scenes of disorder, with loss of life, character, and property; while small-pox, and other diseases contracted from the white settlers, have carried off whole tribes—thousands at a sweep.

Such is but a very imperfect sketch of the Indian tribes of North America, who, fast disappearing before the encroachments of the white man, will in all probability, in less than a century hence, be altogether extinct as a separate people. To those who are curious to know more of them, we refer with pleasure to the work of Mr George Catlin, who had the courage and self-denial to live several years amongst the remote western tribes, for the purpose of acquiring information respecting their character and habits. From the large stores of varied matter which Mr Catlin presents to us, we shall take leave to lay before our readers one of the author's

experiences as a wandering traveller.

He was one day riding across an Upper Missouri prairie, where the grass is seven or eight feet high, with three companions, one an Indian guide of the name of Pah-me-o-ne-qua, or the Red Thunder. Three of the party sat down to their mid-day meal, but the Indian stood aloof, sad and thoughtful. 'This is the plain of fire grass,' said he, 'where the fleet-bounding wild-horse mingles his bones with the red man, and the eagle's wing is melted as he darts over its surface.' Notwithstanding these ominous words, after gazing long around, he gracefully sank down on the grass, and his relieved companions chatted cheerfully by his side. But on a sudden 'Red Thunder was on his feet—his long arm was stretched over the grass. "White man," said he, "see ye that small cloud lifting itself from the prairie?—he rises! the hoofs of our horses have waked him! The Fire Spirit is awake—this wind is from his nostrils, and his face is this way." No more; but his swift horse darted under him, and he gracefully slid over the waving grass as it was bent by the wind. Our viands were left, and we were swift on his trail. The extraordinary leaps of his wild-horse occasionally raised his red shoulders to view, and he sank again in the waving billows of grass. The tremulous wind was hurrying by us fast, and on it was borne the agitated wing of the soaring eagle. His neck was stretched for the towering bluff, and the thrilling screams of his voice told the secret that was behind him. Our horses were swift, and we struggled

hard; yet hope was feeble; for the bluff was yet blue, and nature nearly exhausted. The sunshine was dying, and a cool shadow advancing over the plain. Not daring to look back, we strained every nerve. The roar of a distant cataract seemed gradually advancing on us-the winds increased, the howling tempest was maddening behind us—and the swift-winged beetle and heath hens instinctively drew their straight lines over our heads. The fleetbounding antelope passed us also; and the still swifter long-legged hare, which leaves but a shadow as he flies. Here was no time for thought: but I recollect the heavens were overcast—the distant thunder was heard—the lightning's glare was reddening the scene and the smell that came on the winds struck terror to my soul. The piercing yell of my savage guide at this moment came back upon the winds; his robe was seen waving in the air, and his foaming horse leaping up the towering bluff.

'Our breath and our sinews, in this last struggle for life, were just enough to bring us to its summit. We had risen from a sea of fire! "How sublime!" I exclaimed, "to gaze into that valley, where the elements of nature are so strangely convulsed!" Ask not the poet or painter how it looked, for they can tell you not; but ask the naked savage, and watch the electric twinge of his manly nerves and muscles as he pronounces the lengthened "Hush—sh," his hand on his mouth, and his glaring eyeballs looking you to the very

soul

'I beheld beneath me an immense cloud of black smoke, which extended from one extremity of this vast plain to the other, and seemed majestically to roll over its surface in a bed of liquid fire; and above this mighty desolation, as it rolled along, the whitened smoke, pale with terror, was streaming and rising up in magnificent

cliffs to heaven.

'I stood secure, but tremblingly, and heard the maddening wind which hurled this monster o'er the land—I heard the roaring thunder, and saw its thousand lightnings flash; and then I saw behind the black and smoking desolation of this storm of fire.' Such fires on the prairies are among the most awful phenomena which it is the misfortune of travellers to encounter.

PETER'S STORY CONTINUED.

In the wild revels of his Indian captors, during his residence amongst them. Peter, in his character of prisoner, of course took no active part. He, however, learned to dance the war-dance, to cry the war-whoop, and to perform other feats, as far as could be attempted with safety. He likewise learned to dress himself in the attire of the Indians, and otherwise adopt some of their customs, by way of conciliating their regard. On account of this accommodating spirit, he was used not with actual cruelty, and his life was spared,

that he might continue to serve as a convenient drudge either in the home encampment or distant war excursions.

Winter being now past, and the snows which lay on the ground having disappeared, the Indians were able to set out on a new expedition against the settlements, without the danger of having their footsteps tracked to their lurking-places in the woods. Properly equipped with firearms, provided no doubt by their French friends and allies, the party of warriors departed from the village, taking Peter with them very much in the capacity of pack-horse; his duty being to carry whatever load they were pleased to impose on his back and shoulders. Such an office, troublesome as it was, did not greatly oppress the young and hardy Scotsman, accustomed, during a number of years, to tolerably severe muscular exertion; besides, the expedition held out to him some hopes of escape, and a return to civilised life. Animated with such expectations, Peter patiently, and with his accustomed docility, trudged at the heels of the band, and, as far as Indians could stoop to express satisfaction with anything, they shewed their attendant that they were pleased with his alacrity and good-nature. Yet they were at all times on their guard against his attempting to elude them, and he felt that, if caught in any act which seemed like desertion, death would instantly be his fate.

Advancing by stealthy marches in an easterly direction, they encamped on the ground at night, without shelter from the weather, or any other comfort than a fire, round which they lay with their weapons in their hands, in case of a sudden attack. Occasionally they caught a little game with traps, for they were afraid to use their guns, lest the report should alarm or rouse the vigilance of enemies. Of this food our hero was indulged with a very scanty share, and unless for a few stalks of Indian corn, which he was fain to eat dry, he would have run the risk of starvation.

At the end of about a week's journey across a rough tract of country, the party arrived at the Blue Hills, and here they encamped for three days, to hold a council as to future proceedings. At this assembly, after due smoking and deliberation, it was sagaciously determined to divide the party into companies of about twenty men in each, every company to be headed by a well-tried brave. In the upbreak which now ensued, Peter had the good-fortune, as he considered it, to remain with his old masters, who were to continue encamped on the spot as a species of staff, on which the different bodies could, if necessary, fall back for assistance and provisions.

Detained in this comparatively near neighbourhood to the settlements, Peter began to meditate flight; the possibility of which, however, seemed still doubtful, as he was never suffered to stray from the party, and was bound when they had occasion to leave him for any brief space of time. A favourable opportunity soon occurred. One night the party having returned from hunting, all sat down to

supper on two polecats which had been captured, after which, greatly fatigued, they threw themselves down before their camp-fire, and were in a short time sound asleep. Now was an opportunity not to be thrown away. Having found, by touching the persons of the Indians, and by making sundry noises, that they would not readily awake, Peter's heart exulted with joy at the prospect of deliverance; and, committing himself to the Divine protection, he set forward defenceless on his hazardous enterprise. Such, however, was his terror, that in going away he frequently halted and paused, looking fearfully towards the spot where his enemies lay asleep, lest they should awake and miss him; but when he had reached a distance of two or three hundred yards, he mended his pace, and made as

much haste as possible towards the foot of the mountains.

On approaching these hills, his ears were suddenly assailed with the dreaded shout of the savages, who, awakening, had missed their charge, and were now bellowing in their surprise and indignation. The deserter reasonably concluded that they would speedily separate themselves and hie off in quest of him in different directions. Heedless of consequences, and scarce knowing where he trod, he now drove impetuously onward through the woods, sometimes falling and bruising himself, and cutting his feet and legs in a miserable manner. Faint and maimed, he still continued his flight until break of day, when good-fortune threw in his way a hollow tree, into which he crept as a place of temporary security. Here he lay enjoying a feverish repose for two or three hours, at the end of which time he was effectually roused to the dangers of his situation, on hearing the voices of his pursuers, near the place of his concealment, threatening vengeance against him should he fall into their hands. Unable to detect the spot where the runaway lay hid, they at last left the place, and he remained in his asylum all the remainder of the day without further molestation.

Stiffened with fatigue, foot-sore, and with hunger appeased only by a few grains of Indian corn, our hero, at nightfall, once more set forward on his journey, keeping the direction of the settlements; trembling at almost every bush he passed, and thinking that each twig which touched him was a savage. Next day he concealed himself in the same manner, and continued his journey at night, avoiding everything like a beaten path as much as possible. On the third night, to his inexpressible terror, he stumbled on a party of Indians, who, awakened by the rustling of the leaves, started from the ground, and seizing their arms, ran from the fire among the woods. Whether to move forward or rest where he was, was now the difficulty. While Peter was revolving this serious question in his mind, he was relieved by seeing a herd of swine making towards the place where he guessed the savages to be: conjecturing that it was these animals which had made the noise, the party returned merrily to the fire of their encampment, and lay down as before.

With more cautious and silent steps he now pursued his course till break of day, when he laid himself down to rest under a fallen log of timber, and slept undisturbed till noon. This was now the fourth day of his escape; and on gaining the brow of an eminence, he saw with delight some habitations of white people, though at a number of miles distant.

The pleasure he had in the scene before him was somewhat abated by his utter inability, from fatigue, to reach the settlements that night. Again, therefore, he composed his wearied limbs to rest; and at dawn of day set forward on his journey towards the nearest cleared lands. Nature, on the point of exhaustion, could with the utmost difficulty bear up for even the few hours which must elapse ere he reached a friendly dwelling. Foundering at the smallest obstacles, and in an agony of pain, it was four o'clock in the afternoon before he arrived at the first house in his path. It proved to be the dwelling of John Bell, an old acquaintance, whose wife opening the door, and seeing, as she thought, an Indian, fled screaming into the house. The whole family being alarmed, immediately seized their arms, and the applicant was speedily accosted by the master with his gun in his hand. Williamson now made himself known, assuring him that he was not an Indian, but an old friend, and was immediately received with every demonstration of kindness.

The poor wanderer, conducted into the house, was overcome with bodily distresses and emotion, and fainted, and fell upon the ground. Being recovered from this state, he was given some refreshment, but at first very sparingly, for fear of the ill effects it might have on his worn-out frame. For several days and nights he was thus affectionately nursed by the family, until his spirits and limbs were pretty well recruited, and he felt himself able to sit on horseback. Kindly equipped with some clothing, he now borrowed a horse from these good people, and proceeded towards the house of his father-in-law,

distant about a hundred and fifty miles.

Peter's appearance at Mount Hiram, in Chester county, filled every one with surprise; for it was generally believed that he had fallen a prey to the Indians, and been consumed in his own dwelling. Great was the joy and satisfaction with which he was received, but not unaccompanied with a look of constraint and sorrow.

'Where, where is Rose?—tell me of my dear wife—I have heard

that she returned here.'

'Alas, poor Rose is gone!' was the heart-breaking reply. 'She was not in a situation to endure such an accumulation of disasters, and died in a week after we brought her home.'

Peter bent his head to this new blow. 'Where,' thought he, in an agony of feeling, 'are my misfortunes to terminate?'

22

PETER AS A COLONIAL SOLDIER.

The news of our hero's escape from captivity among the Indians, and of his safe arrival at the house of his father-in-law, excited considerable interest in the neighbourhood; and the intelligence having reached Mr Morris, the governor of the state, his excellency requested to have some explicit information on the subject. Peter immediately complied with this wish, which had another object besides the gratification of personal curiosity. At this period, as has been said, the British colonies were pressed upon by the French, and their allies the Indians—an alliance disgraceful to a civilised people; but not more so to the French than the English, for they likewise sought and partook of aid from these savage denizens of the wilderness.

The information afforded by Peter to the governor led to examinations before the House of Assembly, by whom he was courteously dismissed, with a promise that all proper methods should be taken to reimburse those who had suffered by the Indians, and to prevent the commission of such hostilities for the future; but it does not appear that Peter ever received any substantial compensation from the state. Having declined to follow his father-in-law's advice, to return to his dilapidated farm, he was now abroad on the world without any means of subsistence. In this forlorn state he enlisted for three years in a regiment raised by General Shirley of New England, for the purpose of operating on the western confines of the settlements. In order that he might recruit his strength before going into actual service, he was transferred for a short time to Boston. His residence in the capital of New England was uncheered by any pleasing circumstance; and it was not without renewed apprehensions that he heard of the devastations still committing by the Indians on the persons and property of settlers. These outrages were committed with much audacity, and in the present day perhaps form the theme of numerous traditions related by the elder inhabitants of Massachusetts and Pennsylvania. One strange fact caused a considerable sensation in Boston, for it occurred within the short distance of thirty miles from the city. In the course of April, a body of Indians, after skulking in the woods for some time, suddenly attacked the house of Mr Joseph Long, a gentleman of large fortune; and proving too strong for its defenders, scalped and cut to pieces the unfortunate gentleman, his wife, and nine servants; after which act of barbarity, they made a general conflagration of the dwelling, barns, cattle, and every other movable, including the mangled remains of their victims, the whole being consumed in one blaze. Only two members of the family were spared, the son and daughter of Mr Long, who were reserved, and carried off for greater cruelties. Alarmed at this inhuman butchery, the people of the

neighbourhood and of Boston quickly assembled, to consider of proper measures for recovering the lost brother and sister, and of punishing the captors. Among the first who offered to go against the savages was Mr James Crawford, a young gentleman of Boston, who had paid his addresses to Miss Long, and was in a short time to have been married to her. His feelings on the occasion meeting with much sympathy, he instantly raised a hundred young men, who heroically engaged to go in quest of the marauders, and, if possible, rescue the young lady from their clutches. Desirous of having any aid which Peter could afford, from his acquaintance with some of the habits and places of resort of the Indians, the party applied to his officers, and their consent being given, Peter cheerfully joined

the expedition.

Being quickly armed and provided with requisites for the journey, the party set out for Mr Long's plantation, which they soon reached, and thence proceeded by intricate paths through the woods on what they believed to be the track of the Indians. This path luckily proved the right one, and conducted them to the top of a hill, from which they saw the Indians in an encampment in the low grounds. Not anticipating any such visit, the savages had taken no precaution to keep up a watch, and therefore at midnight, when all were wrapt in sleep round their fire, the party stole upon them. The onslaught of the whites need not be described; it is sufficient to say that they slew every Indian who was upon the ground. Near the spot the young lady was found in a deplorable condition, with person soiled and torn, and her hands bound painfully round a tree; and she stated that next day she was to be sacrificed to the passions of her barbarous captors. Her brother, it was found, had been already put to death, and was past all worldly sufferings. It is to be regretted that, in releasing this young and accomplished female, the party of whites appear to have emulated the Indians in brutality. Not satisfied with killing them, they hacked the senseless bodies, steering homewards triumphant with fifty scalps, for which a handsome reward was paid by the authorities of Boston. There can be no doubt that such barbarities served to confirm the Indians in their hatred of the whites, and to perpetuate hostilities between them. In those times, however, anything like moderation in the treatment of tribes of aborigines was unknown.

Peter now embarked in the active life of a soldier, marching with his regiment to Oswego, at that time considered a remote part of the settled country near the great north-western lakes. The object of the expedition was to destroy certain French forts, and to protect the frontiers; but the duty was of the most harassing kind, and great numbers of men were picked off by Indians in the French alliance. One of the incidents which occurred while the English forces were encamped on the plains of Chippewa, will furnish an idea not only of Indian cunning, but of the singular perils to which

individuals were exposed during the campaign. Colonel St Clair, the commander, was a bold and meritorious officer; but there was mixed up with his bravery a large share of rashness, arising, perhaps, from ignorance of Indian tactics. His indiscretion in this case consisted in encamping on an open plain beside a thick wood, from which an Indian scout could easily pick off his outposts without being exposed in the least to the fire of the sentinel.

Five nights had passed, and each night the party had had to lament the disappearance of a sentry, who stood at a lonely post in the vicinity of the forest. These repeated disasters struck such a dread into the breasts of the remaining soldiers, that no one would volunteer to take the post, and the commander-knowing it would be throwing away their lives—let it stand unoccupied for a night or two. At length a rifleman of the Virginia corps volunteered his services. He was told the danger of the duty; but he laughed at their fears, saying he would return safe, to drink the health of his commanders in the morning. The guard marched up soon after, and he shouldered his rifle, and fell in. He arrived at his bounds, and, bidding his fellow-sentinels good-night, assumed the duties of his post. The night was dark, from the thick clouds that overspread the firmament, leaving no star to shine on the sentinel as he paced his lonely path, and nought was heard but the mournful hoot of the owl, as she raised her nightly song from the withered branch of the venerable oak. At length a low rustling among the bushes on the right caught his ear. He gazed long towards the spot whence the sound seemed to proceed, but saw nothing, save the impenetrable gloom of the thick forest which surrounded the encampment. Then as he marched onward, he heard o'er the gentle breeze of night the joyful cry of 'All's well,' after which he seated himself upon a stump, and dropped into a deep fit of musing. While he thus sat, a savage entered the open space behind him, and, after buckling his tunic, with its numerous folds, tight around his body, drew over his head the skin of a wildboar, with the natural appendages of these animals; and, thus accoutred, walked slowly past the soldier, who, seeing the object approach. quickly stood upon his guard. But a well-known grunt eased his fears, and he suffered it to pass, it being too dark for any one to discover the cheat. The beast quietly sought the thicket to the left; it was nearly out of sight, when, through a sudden break in the clouds, the moon shone bright upon it. The soldier then perceived the ornamental moccasin of a savage, and quick as thought prepared to fire. But, fearing lest he might have been mistaken, and thus falsely alarm the camp-and also supposing, if it were so, other savages would be near at hand, he refrained, and having a perfect knowledge of Indian subtlety, quickly took off his coat and cap, and after hanging them on the stump where he had reclined, took hold of his rifle, and softly groped his way towards the thicket. He had barely reached it, when

the whizzing of an arrow passed his head, and told him of the

danger he had so narrowly escaped.

Turning his eyes towards a small spot of cleared land within the thicket, he perceived a dozen of those animals sitting on their hind legs, instead of feeding on the acorns which, at this season, lay plentifully upon the surface of the leaves, and, listening attentively, he heard them converse in the Iroquois tongue. The substance of their discourse was, that if the sentinel should not discover them the next eve, so soon as the moon should give them sufficient light for their operations, they would make an attack upon the English camp. They then left their rendezvous, and soon their tall forms were lost in the gloom of the forest. The soldier now returned to his post, and found the arrow sunk deep in the stump, it having passed through the breast of his coat.

He directly returned to camp, and desired the orderly at the commander's marquee to inform him of his wish to speak with him, having something of importance to communicate. He was admitted—and having been heard, the colonel bestowed on him the then vacant office of lieutenant of the corps, and directed him to be ready, with a picket-guard, to march at eight o'clock in the evening—again to place his hat and coat upon the stump, and then lie in ambush for the intruders. Accordingly the party proceeded, and obeyed the colonel's orders by placing the coat and cap on the stump. The moon arose, but shone dimly through the thick branches of the forest.

While they were thus waiting, an arrow whizzed from the same quarter as before; the mock soldier fell on his face; a dozen subdued voices sounded from within the thicket, which were shortly followed by the sudden appearance of the speakers themselves. They had barely reached the fallen soldier, when our hero gave the word 'Fire!'—and the whole band lay dead upon the plain. After stripping them of their trappings, the party returned to the camp. The intrepid soldier who had detected the manœuvre of the Indians rose in the army, and afterwards signalised himself in the revolution-

ary war as the gallant Colonel Morgan.

Peter's exertions as a soldier during the campaign of 1755-6 against the French in the north-west were, as he tells us, so poorly rewarded, that for twelve months' service he never received more than six weeks' pay. A want of unanimity in the councils and proceedings of the English and colonial governments appears to have been the bane of this unfortunate contest. Peter, confined at Albany by wounds and personal weakness, had the good-fortune not to be present at the scene of General Braddock's defeat (July 9, 1755). Having gone with a large body of British and provincial soldiers to attack Fort Duquesne, General Braddock, whose knowledge of war had been gained on the plains of Flanders, was not cautious in guarding against an ambuscade in the woods through which he had to pass. Having crossed the river Monongahela, the army was

proceeding forward, when it was suddenly attacked by an invisible enemy. Volleys of musketry were poured in upon the British force from behind bushes and trees, and the fire was returned at mere random, and without effect. The general and his officers, among whom was George Washington, then a young man, behaved with great bravery; but all was unavailing. The French and Indians, concealed in the ravines and forest, took deliberate aim, and produced a carnage unparalleled in the annals of modern warfare. The general himself received a mortal wound, and many of his best officers fell by his side. The remnant of the army was carried off by Washington and others as they best could. About eight hundred English, but not more than forty French and Indians, were killed.

The disgraceful termination of this affair roused England to take more effective measures, and Wolfe was appointed to match himself The result is well known. The French were with Montcalm. vanquished on the plains of Abraham at Quebec (September 13, 1759), and their stronghold, Canada, added to the English crown. Before the termination of this protracted struggle for mastery between two European powers on the North American continent, Peter Williamson had brought his soldiering to a close. On the 14th of August 1756, he was taken prisoner by the French during one of the many ill-conducted attacks on their forts, and was conveyed with his companions in captivity to Montreal. From Montreal he was taken to Quebec; and there, in terms of surrender, the English prisoners were placed on board a French vessel, and despatched to England in exchange. The French, Peter observes, behaved with no little politeness, yet almost starved the prisoners on board, one biscuit and two ounces of pork per day being all that each man was allowed. After a passage of six weeks, the prisoners rejoiced in seeing the shores of England, and arrived at Plymouth on the 6th of November 1756. Having, after some delay, been permitted to land, parties of the released soldiers were draughted into different regiments; but our hero, on examination, was pronounced unfit for further service, in consequence of a wound in his hand, and was discharged.

MISFORTUNES STILL PURSUE PETER.

With a gracious allowance of six shillings as travelling-money, Peter Williamson departed from the dockyard of Plymouth. Friendless and forlorn, and so maimed in his hand as to be unfit for any severe manual labour, he turned his face towards home, the home of his infancy—Scotland—whose blue hills he had not expected ever more to behold. With a heavy heart he trudged on his way northwards, as much in the capacity of a mendicant as an independent pedestrian. Occasionally he received succour from parish-officers; and as a discharged soldier, who could relate tales

of war in 'the plantations,' he was an acceptable guest at the farmers' firesides.

In the course of his journey he arrived at York; and here, in seeking a pass, with some small pecuniary allowance, he attracted the curiosity of the mayor, by whose benevolent interference he was able to get a narrative of his life and adventures printed. Such was the interest felt in this publication, that a thousand copies were sold in the first three weeks. Proceeding northwards, he sold six hundred and fifty in Newcastle; and wherever he went it met a like favourable reception. The profit on a thousand being thirty pounds. Peter began to think himself happy in having passed through hardships which were now proving so lucrative. Arriving in Aberdeen, June 1758, he made another effort to turn his misfortunes to profit. by exhibiting himself in the arms and accoutrements of the North American savages, and giving representations of their gestures and war-whoop. The exhibition was resorted to by applauding multitudes, and his pamphlet was also experiencing a ready sale, when a sudden stop was put to his proceedings by the magistrates. These worthy individuals, feeling the infamy of the exposure of the kidnapping system, and perhaps stimulated by their clerk-depute, and other parties who had been concerned in the traffic, caused Peter to be dragged before their tribunal, on the accusation of having issued 'a scurrilous and infamous libel on the corporation of the city of Aberdeen and whole members thereof.' Of this charge he was at once convicted; the obnoxious pages of his tract were ordered to be torn out and 'publicly burned by the common hangman, the townofficers attending, and publishing the cause of the burning;' he was ordained to be incarcerated till he should sign a denial of the truth of his statements; he was subjected to a fine of ten shillings, and banished from the city. All this persecution is the more monstrous. as it does not appear that Peter contemplated taking any measures to obtain satisfaction for his having been kidnapped. Now, however, having come to Edinburgh, and there found some sympathising friends, he was speedily induced to seek justice against these local tyrants. An action having been brought by him before the Court of Session, complaining of the unjust treatment he had latterly experienced from the Aberdeen corporation, he obtained, January 1762, a decision awarding him damages to the amount of £100, besides the expense of the litigation, about £80, 'for which the Lords declare the defenders to be personally liable, and that the same shall be no burden upon the town of Aberdeen.

We are not aware of anything more ludicrous in the annals of courts of justice, than the paroxysm of alarm and vexation into which the magistrates of the good town of Aberdeen were thrown by the result of Williamson's well-sustained suit. An attempt was made by them to procure a reversal of the decision, by presenting what is termed a reclaiming petition to the court. The

Collowing is a copy of a letter from them to their law-agent in Edinburgh, Walter Scott, writer to the Signet,* on this melancholy subject:

'ABERDEEN, February 4, 1762. '

'SIR—We are sorry to find by yours of 30th past, that there is a sentence pronounced against us in Williamson's process, whereby we are decerned to pay to him a very large sum out of our private pockets.

"We think it necessary to inform you that our conduct and intentions, with regard to our sentence against him, have been entirely misunderstood. We can with the greatest integrity declare that, at the time of pronouncing that sentence, neither of us knew directly or indirectly that ——, the depute-clerk, was anywise concerned in transporting boys to America, or that there ever was in being the book he produced in the proof: that neither of us had ever any interest or concern in such trade: that we never knew, and did not believe, that any men or boys were ever transported from Aberdeen to America contrary to law: that we considered the paragraph in Williamson's pamphlet respecting the merchants of Aberdeen to be a very calumnious and reproachful aspersion on them, which they did not deserve: that Williamson himself had the appearance of being an idle stroller, and could give no good account of himself, and had procured this pamphlet to be composed for him. of such shocking circumstances, in order the more easily to impose upon and draw money from the credulous vulgar: and, upon the whole, that we had no motive of interest, either on our own account or any other person whatever, nor any prejudice against Williamson (having never before seen or heard of him), to induce us to pronounce the sentence against him: that we did it purely as what we judged material justice, to vindicate the character of those we believed to be innocent, and were unjustly reflected upon: and that whatever in the sentence appears to their Lordships to be either oppressive or illegal, proceeded entirely from error in judgment, and not from any sinister design: so that, however far the sentence has been wrong, we are ready most freely to make any declaration that may be necessary, that it proceeded from the most innocent intention.

'Under these circumstances, you will easily perceive how much we were surprised on reading yours, giving account of the sentence against us, and how hard a thing it is to be decerned to pay a sum of money as a fine for doing what we considered to be our duty.

'You will therefore lay this before the lawyers, in order they may the better form a reclaiming petition. We must think our case very hard, if their Lordships don't grant us redress in this matter. We are,' &c.

'This letter,' says Peter, 'did not avail their cause. It was in vain to deny their being in the knowledge that such an illicit species of traffic was carried on by some of the merchants in Aberdeen. when it was done in so public a manner that the meanest residenter in the city observed it; when the fama clamosa of kidnapping overspread the whole country, so that the poor people whose business led them frequently to town, were afraid to carry their children along with them, lest they should be picked up and transported to the plantations. In the end, they insinuate that their sentence against me proceeded from an error in judgment, and not from any sinister design, and that they were willing to make any declaration necessary, to evince the innocence of their intentions. But if a sentence calculated for the suppression of truth, and to prevent the detection of a commerce the most illegal and most destructive of society, can be said to proceed from no sinister design, then every sentence that has a tendency to screen the guilty, and encourage those monsters who make a traffic of the persons and liberties of their fellow-creatures, must be accounted innocent. The whole of the procedure of the magistrates against me appears to have been directed to this single end. From this view, they first caused the whole impression of my book to be seized, and those offensive telltruth leaves to be burned, that they might not revive the memory of this villainous trade, and rise in judgment against their brother-Second, In order to make the surer work of it, they merchants. extorted from me the declaration formerly stated, under the terror of imprisonment, and caused publish the same in the newspapers, in order to stigmatise my character, and brand me with the infamy of being an impostor and a liar. And, lastly, they banished me the city, lest I should retract my declaration, and have an opportunity to spread the truth of my former assertions. Their schemes, however, had an effect the very reverse of what they intended. Instead of suppressing the truth, their proceedings have proved the means of bringing it to light, and confirming it by indubitable evidence; and so opening a scene of the grossest impiety, barbarity, and wickedness.'

It was the intention of the officers of the crown to have instituted a criminal prosecution against the parties who had been engaged in the trade of kidnapping; but it unfortunately happened that the wretches were secured by a certain act of indemnity. They were still, however, civilly responsible to Williamson, who accordingly raised an action against a certain Bailie —— and others, for damages on account of his abduction. The scoundrelism of the men, and the brutal manners of the time, are both evinced by some circumstances which took place in the course of this second litigation. Having obtained a temporary withdrawal of the process from court, in order that it might be submitted to friendly arbitration, the defenders entered into a conspiracy to intoxicate the arbiter, and

obtain his signature to a decision in their favour. The arbiter was the sheriff-substitute of the county. It appears that they began to ply him with drink at eleven in the forenoon of the day preceding that on which he was to give his decision. Conveyed home at night dead drunk, he had no sooner awakened to consciousness next morning, than they administered to him a large dose of spirits. white wine, and punch, 'with cooling draughts of porter from time ... to time.' After dinner he and two others sat down to ombre. drinking at the same time, helter-skelter, a bottle and a half of Malaga, a mug of porter, two bottles of claret, and a mutchkin and a half of rum made into punch.' After these potations, the learned sheriff pronounced judgment, and retired to bed, where he lay all the next day (Sunday) speechless. The judgment thus procured was set aside by the supreme court, who, in December 1768, finally awarded to Williamson £200 in name of damages, in addition to the costs of his litigation, which were modified to one hundred guineas.*

PETER SETTLES IN EDINBURGH.

Peter who, meanwhile, had exhibited himself to large audiences in Edinburgh as an Indian warrior, now resolved to settle in that city and support himself by some kind of business. At that time the large hall in which the Scottish parliament had met, but which now, like Westminster Hall, was a sort of central place of resort in connection with the adjacent law-courts, was partially devoted to purposes not unlike those of a modern bazaar. Here Peter set up a tavern for the service of the multitudes—lawyers, litigants, and miscellaneous loungers-who, during session-time, filled the open space of the hall for three or four hours each day. In a volume, entitled Reekiana, or Minor Antiquities of Edinburgh, where there is a ground-plan of the hall, Peter's tavern, there exactly indicated, is said to have consisted of 'three or four very small apartments, one within another; the partitions made of the slimmest materials, some of them even of brown paper.' Here, too, our hero sold copies of his book, as also of other tracts of a more aspiring kind, which he wrote from time to time upon the politics of the day, but the whole of which have long since passed into oblivion. Robert Fergusson, in a poem on the Rising of the Session, thus alludes to Peter's little tavern:

'This vacance is a heavy doom
On Indian Peter's coffee-room;
For a' his china pigs are toom,
Nor do we see
In wine the soukar biskets soom,
Light as a flie.'

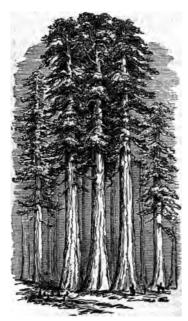
Afterwards Peter removed to more spacious apartments in the neighbouring street, where his trade was less liable to be affected by times and seasons, and where his occasional exhibitions as a Delaware Indian furnished an attraction of considerable interest. But Peter was of too lively and ingenious a mind to be contented with such ordinary resources. Aided by the knowledge he had acquired in scenes more bustling than the Scottish capital then presented, he became a projector of schemes, locally new and unheard of, some of course visionary, but others practicable and likely to be generally useful. About 1772 we find him commencing the biennial publication of an Edinburgh Directory, being the first compilation of the kind which had appeared in our city. His directories are now esteemed curious memorials of a past state of things in the Scottish capital, and prized for their rarity by book-collectors. The greatest of this singular person's projects was that of a penny-post for the city and suburbs. More steady than projectors usually are, he had the address to establish and conduct this institution much to the satisfaction of the community, and with considerable advantage to himself.

While conducting his directories and penny-post, with other kinds of business, Peter formed a second matrimonial alliance, which, we regret to say, did not prove a happy one. Yet, though the current of his existence was ruffled by this unfortunate affair, his latter years were not by any means blank or joyless. Essentially good-tempered, and of a sanguine disposition, he surrounded himself with many friends, among whom he passed not unpleasantly into a hale and hearty old age. It is gratifying to know that he was not unrecompensed for his contrivance of the penny-post. When the institution was ultimately taken under the charge of government, a pension was bestowed upon Peter Williamson, who was thus satisfactorily provided for to the termination of his career.

Nothing remains to be told of 'Indian Peter,' but that, after attaining his sixty-eighth or sixty-ninth year, he died on the 19th of January 1799, leaving behind him the character of an enterprising

and somewhat eccentric, but upright man.





The Three Graces (Wellingtonia gigantea). vegetable life. It is to a brief account of the more remarkable phenomena that the following pages are devoted;



HE vegetation which everywhere adorns the surface of the globe, from the moss that

covers the weather-worn stone. to the cedar that crowns the mountain, is replete with matter for reflection admiration. Not a tree that lifts its branches aloft, not a flower or leaf that expands beneath the sunlight, but has something of habit or of structure—something of form, of fragrance, or of colour to arrest the attention. is true that early and constant familiarity has a tendency to render us unobservant of that which surrounds us; but that individual must be idle, and ignorant as idle, whose curiosity cannot be awakened by a description of the wonderful mechanism and adaptations of vegetable life. It is to a brief account of the more

not with a view to excite mere unreasoning wonder, but with a desire to create a spirit of inquiry into principles as well as into facts, and to lead the mind to one of the most agreeable pursuits which the wide field of nature presents.

GENERAL CHARACTERISTICS OF PLANTS.

Minerals, plants, and animals are all formed by the chemical combination of certain elementary substances. In minerals, these elements combine by the force of chemical affinity only; but in plants and animals, they are held in combination by vital action. Vitality enables plants and animals, by means of certain organs, to absorb and assimilate food, consisting of the elements necessary for their increase, and also to reproduce beings of their own kind; hence they are said to be organised, and the substances of which they are composed are known by the general name of organic matter. Minerals, not possessing vitality, have no organs, and consist only of inorganic matter. Plants derive their sustenance from inorganic matter—air, earth, and water; animals cannot do so, but must live on vegetables, or prey upon each other. Vegetation, therefore, must be the precursor of animal life in the economy of nature.

The simplest forms of life are observable in certain plants and animals whose economy is limited to the absorption and assimilation of nutriment, and the power of reproduction; and the difference between these humble plants and animals is so trifling, that in them the animal and vegetable kingdoms seem to pass into each other. Thus, notwithstanding all the light which modern science has thrown on organic life, we are yet at a loss to distinguish between certain lowly forms of corallines and sponges, and to say which are plants and which are animals. But while to the eye of imperfect knowledge, the lowest forms of plants and animals seem to merge into each other, it must be ever borne in mind that, beyond a faint analogy, there is nothing like identity between the respective functions of these two great kingdoms.

Few plants possess the power of locomotion; and though the aquatic plant, called the fresh-water sailor, seems to detach itself from the mud in which it originally grows, and rises to the surface of the water to expand its flowers, this must be regarded as the necessary result of a peculiar mechanism, and not of volition. Plants may be propagated by division; but it is only among the lowest animals, as sponges and polyps, that detached parts will become perfect individuals. Plants have no stomach; and though the lobelike leaves of Venus's fly-trap, hereafter to be noticed, are said to digest the flies they catch, it is rather ordinary decay that takes

cannot, without a misapplication of words, apply the term feeling where no nervous structure has yet been discovered. In like manner, the growth of young trees and shrubs has been compared to the spinal marrow of animals; the upward current of the sap in spring, and its descent in autumn, to the circulation of the blood; and the exhalation of oxygen, and the absorption of carbonic acid gas in the leaves, to respiration; but all these are mere analogies, not identities of function. Indeed, all the vital operations of plants are performed in a different manner from those of animals; the instances of locomotion, sensitiveness, and power of digestion in plants being very rare and imperfect, while the power of propagating

by division in animals is equally so.

Plants, whether rooted in the soil or on other organic bodieswhether floating in water or suspended in the atmosphere, are dependent upon air, moisture, heat, and light for their perfect development. Besides these conditions, many require nourishment from the soil; but, strange as it may appear at first sight, soil is not essential to vegetation in general; for many plants, such as aquatics, parasites, and aërials, grow and propagate their kind without once coming in contact with the ground. It is common to divide the vegetable kingdom into two great sections—those plants which flower, as trees, shrubs, and grasses; and those which do not flower, as ferns, sea-weeds, and mushrooms. It is also usual to arrange them according to their manner of growth. Thus, some increase by external layers, as the fir, the wood of which shews many concentric layers, each ring being a year's growth; others grow from within, as the palm, the trunk of which shews no concentric layers; and some increase by mere prolongation of the apex, or growing point, as the ferns, sea-weeds, and lichens. Those which increase by external layers, have the nerves of the leaves reticulated or netted, as in the apple; those which grow by internal additions, have the nerves arranged in parallel order, as in the lily; and those which add to their bulk by simple extension of the growing point, have no distinct venation, as in the lichens.

REPRODUCTION AND DISPERSION OF PLANTS.

The main object of a plant during growth seems to be the reproduction of its kind. Whether the term of its being be limited by a day, by a year, or by centuries, its sole effort—as it proceeds from leaf to stem, from stem to branch, and from branch to flower and fruit—is the multiplication of itself. This is effected variously: by seeds, by spores or embryo plants, by tubers, by runners which put forth shoots as they elongate, by branches which send down roots, by branches bending downwards and taking root, by slips or detached branches, or even by single leaves.

Increase by seed is the most familiar mode of reproduction, being

common to all flowering plants. Seeds are merely leaves preserved



Section of a Peach.

in peculiar cerements against the return of the season of growth. They are also furnished with a sufficiency of nutriment for the embryo plant, till its roots have struck into the soil, and its leaves be expanded into the atmosphere. For the excitement of growth in seeds, a certain amount of heat and moisture is necessary; but too much heat would parch them, and too much cold or moisture would destroy their vitality. To provide against such contingencies, nature has conferred on them the most

ingenious and perfect coverings. The cocoa-nut has a tough fibrous coir and woody shell, impervious alike to drought and rain; the chestnut has a compact leathery envelope; the peach a hard stony case, surrounded with soft flesh; the apple a fleshy pome, enclosing leathery cells; the rose a waterproof hip, packed with down; the pea and bean a pod of parchment; and seeds apparently naked have either a coriaceous membrane, or have their exterior tissue so condensed, that they look as if they had come from the hand of the japanner. In all of them, the protection against cold, drought, moisture, and other destructive agencies is very complete. Seeds which have been buried for centuries have, on being brought to the surface, sprung up into healthy plants: even a crop of wheat is said to have been reared from seeds taken from the hand of an

Egyptian mummy more than three thousand years old!

Equally perfect with this protection are the means for their dispersion over the surface of the globe. What could be better adapted for floating from island to island than the cocoa-nut, with its light fibrous coir and woody shell? What more easily caught up by the slightest breath of air than the seeds of the thistle or dandelion, with their little parachutes of down? Or what more aptly fitted for attachment to the coats of wandering animals than the hooked . heads of the teasel and burdock? Nor does contrivance end here. Many, when ripe, are ejected from the vessels which contain them with considerable force by means of elastic valves and springs. The Cardamine impatiens throws its ripe seed to a considerable distance on being touched; so does the squirting cucumber, the geranium, the common broom, and others, as if they were endowed with vitality, and had a care for their embryo progeny. Some do not even part with their seeds till these have struck root as independent plants. Thus the mangrove, which flourishes amid the mud of tropical deltas and creeks, retains its berries till they have sent down long threadlike radicles into the silt below, as if it felt

that the water and slime by which it was surrounded were elements too unstable to be intrusted with its offspring.

Plants that reproduce themselves by spores or germs belong to the flowerless section of vegetation, as the ferns, sea-weeds, mosses, mushrooms, and the like. In many of these the reproductive spores are so minute that they float in the air unseen; and not a dried mushroom or puff-ball that is struck by the wandering foot, but disperses thousands of its kind around it. The little brown specks on the leaf of the fern, the snuff-like powder of the puff-ball, or the dust arising from the mould of a decayed cheese, are all alike the germs of future plants; and when we consider how minute each individual is, how liable to be Fern, shewing the clusminute each individual is, now hasts borne about by winds, by water, and by the covertiers of spore-cases inco of animals to which they may adhere, we shall frond. cease to wonder at the fact, that there is not a



portion of surface, organic or inorganic, that may not be covered with their growth. The spores of sea-weeds, which are always surrounded by water, are covered by a mucilage that enables them to adhere to whatever solid body they touch; and what is peculiar in this adhesive substance—it is insoluble in water. 'Let chemistry,' says Macculloch in his Illustrations of the Attributes of God, 'name another mucilage, another substance which water cannot dissolve, though apparently already in solution with water, and then ask if this extraordinary secretion was not designed for the special end attained, and whether also it does not afford an example of that Power which has only to will that it may produce what it

desires, even by means the most improbable.'

Many plants, as the potato, reproduce themselves both by seeds and tubers. Both modes, however, do not take place with equal exuberance at one and the same time. In its native region of South America, where the climate is better adapted for blossom and ripening of seed, the potato flowers luxuriantly, but yields an insignificant crop of small acrid tubers: in our unstable climate, on the other hand, the underground progeny is the more abundant and prolific. There is, it would seem, a certain amount of vital force in every plant, and if that force be expended on flowering, tubers will not be produced, and if on the production of an underground progeny, the seed will not be matured, as is the case with the horseradish and Jerusalem artichoke. Here, however, it must be remarked, that tubers are not roots in the botanical sense of the word: they are true underground stems, which, instead of terminating in fruit and seed, terminate in nodes full of eyes or leaf-buds, and supplied with a quantity of farinaceous matter for the support of the young buds, till they have struck their roots in the soil

to elaborate their own sustenance. Let any one unearth a potato plant with care, and he will at once perceive the difference between the true roots spreading out into minute fibres, and the underground stems terminating in tubers. The former are tough and fibrous, diverging into minute radicles, each tipped with its little sucking point or spongiole; the latter are soft and succulent, undivided, and ending in a mass of farinaceous matter, studded with young buds. Each of these buds, if detached with a portion of the tuber, and placed in proper soil, will spring up into a perfect plant—the farinaceous fragment supplying it with food until roots and leaves are formed.

The manner in which plants reproduce themselves viviparously, differs according to the constitutional character of the kind. Some, as the elm and poplar, have their roots furnished with buds, which sooner or later sprout forth into offsets and suckers, as they are called, and these annually increase in bulk and height, ultimately becoming, under proper conditions, perfect trees. Others multiply themselves by sending out runners, each of which produces



Aquatic Plant extending its creeping stems along the mud.

several young plants; and many herbaceous perennials extend themselves in the same way, either by runners under ground, as the couch-grass, or above ground, as the strawberry. Most people must have observed the continual efforts of the latter plant to extend itself in this way; and so it is with many others—the propensity being most powerful where there is the least opportunity of bringing forth seed. It is often highly interesting to watch

the progress of these runners. Where the soil is soft and favourable throughout, the young shoots are developed at about equal distances; but where the soil is hard, or covered with stones, the runner pushes its way over these obstructions, refusing to put forth a single bud until the proper conditions for its maintenance be reached. We have often seen a gravel-walk thus crossed by a strawberry runner, the runner being as budless as a piece of copper wire, until it had arrived at the soil on the other side, where it immediately put forth its young progeny in abundance. Instances of this kind are often ascribed to vegetable instinct; and were it not for the essential differences which evidently exist between vegetables and animals, one would be almost tempted to assign to it a higher designation. Some plants produce living seeds in the vessels where the ordinary seed is matured, as may be seen in certain varieties of the onion,

known as tree and apple onions; and others, like some of the lilies,

yield little perfect bulbs in the axils of the stem leaves.

Another manner in which trees multiply themselves is by their branches bending downwards till they touch the ground with the growing points, which then take root and spring up into independent This frequently happens among trailing shrubs, as the bramble and honeysuckle, and may also be witnessed among our A somewhat similar mode of garden roses and gooseberries. extension is presented by the banyan, which becomes enlarged without the assistance of either seeds or suckers. Roots are produced by the under side of the lower branches: these hang dangling in the air for months before they reach the ground; this at last they penetrate, and become stems to a new head of branches. An old tree of this kind, as will be shewn in another section, presents a most magnificent object, forming concentric corridors over a great extent of surface. Acting upon the principles here pointed out by nature, gardeners propagate many of their favourites by layers—that is, by bending a branch or shoot till a portion of it be buried in the soil, where it throws out roots, and establishes itself as an independent plant. This being done, it is removed from the parent stock and placed in another situation. Plants are also propagated by slips that is, by detached young shoots being thrust into the soil, where they throw out roots, and grow up into healthy individuals. Budding is another artificial mode of propagation; it is, in fact, merely slipping at an earlier stage of growth. It is performed by taking the leaf-bud from one tree or branch, and neatly inserting it under the cuticle of another tree or branch, where, fed by the necessary juices, it extends to a new bough or arm. Grafting may be regarded as the planting of a cutting, in a growing stock suitable to it. instead of in the ground. Perhaps the most curious mode of natural reproduction is that by the leaf. Some leaves, as those of the echeveria, malaxis, gloxinia, fuchsia, orange, and others, when fallen to the ground in a young and growing state, occasionally put forth roots and become perfect plants.

What a curious view of vegetable life do the principles of reproduction unfold! namely, that all parts of a plant—whether root, tuber, bulb, stem, branch, leaf, or seed—will, under certain conditions, grow up into a perfect individual, similar to the parent from which it has sprung. All modes do not take place at one and the same time, for nature is never prodigally wasteful of her resources; but where climate or other conditions interrupt production by one source, another is developed more exuberantly than usual to supply its place. If we have not conditions to mature fruit and seed, there will be tubers, or suckers, or runners instead; and just as the chances of failure are great, so are the modes of reproduction proportionally increased. There is nothing corresponding to this in the animal kingdom, unless among the very lowest forms, as the polyps

and sponges, which also increase by division. Lop away a branch from a tree, and its place may be supplied by another; break off the limb of a crab or insect, and another limb will shortly take its place; but while the detached branch will spring up into a tree similar to its parent, all vitality has fled from the separated limb of the crustacean. The higher kinds of animals have no power to reproduce lost parts; but while devoid of this vegetative-like power, they have a more exalted sentient development; and if denied the power to reproduce a lost limb, they are endowed with faculties which can better protect them.

METAMORPHOSES OF VEGETATION.

In a state of nature, certain orders of vegetation are limited to certain localities, these situations being characterised by some peculiarity of soil and atmospheric influence. If the conditions of soil and climate remain the same, the characters of plants are nearly uniform and stationary; and this may be always said of them in their natural state. But if they be removed from a poor to a rich soil, from a warm to a cold climate, from a dry to a moist habitat, or vice versa, then their internal structure will undergo a change; and this change will manifest itself in one or other of their external characters. In some classes, the change is most evident in the roots and tubers; in others, in the stems and leaves; while in many, the flowers and fruit are the parts most affected.

The changes which roots and tubers can be made to undergo are numerous and highly beneficial to man. The potato, for example, is a native of tropical America; and when found wild, its tubers are small and scarcely edible; while in Europe it has been rendered by cultivation one of the most valuable articles of food. The produce of an acre of wild potatoes could be held in a single measure; while in Britain, the same area will yield from forty to sixty bolls. Cultivation has produced a thousand varieties of this tuber, varying in shape, size, colour, and quality. Beet, parsnip, and turnip are also made to assume many variations under proper cultivation. The swollen root of the latter, for instance, has, since the beginning of the present century, been metamorphosed in forms from globular to fusiform, in colours from white and yellow to purple and green, and in weight from a couple of ounces to twenty pounds. So also with the carrot, which in a wild state is a slender, tapering, fleshy root of a yellowish-white colour, but which by cultivation increases in size, and assumes a deep red or orange colour. In the one case, the root is not much thicker than a common quill; in the other, it becomes as thick and long as a man's arm.

Stems, though less liable to metamorphosis of this kind, are still capable of being strangely changed from their normal condition. The vegetable known as kohl rabi is an instance of a stem swollen

at its base, as the root of the cultivated turnip is at its upper part. If a tree which is a native of mountains be placed in a valley, it grows more rapidly, and its timber becomes softer and less durable; and, in like manner, if the tree of a valley be removed to a mountain, it becomes of slow growth and small dimensions, but produces timber remarkable for its toughness and durability. By cultivating upon this principle, tall stems are for the most part rendered short, and short ones taller; the dahlia, for example, having been reduced to one-half of its natural height by garden culture.

Leaves are also subject to innumerable metamorphoses, arising either from culture, change of season, disease, or injury by insects. Let any one examine the cabbage in its wild state, as it trails among the shingle of the sea-shore, with its slender stem and small glaucous leaves, and then turn to the giant of the garden, with its stout fleshy stalk and large succulent leaves springing and thickening so rapidly that they have not room to unfold themselves, but gather into a heart or cluster several feet in circumference, and he will have some idea of the metamorphic adaptation of vegetable life. It is owing to the Protean nature of this organ that we have puckered leaves, as in the curled cress and curled savoy; and that we have notched and lobed ones becoming simple and entire.

The metamorphoses which occur in the *floral organs* are also very frequent; and on this feature depends all that variety and beauty which it is now so much the object of the florist to produce. These transformations consist in an increase of the petals, in a conversion of stamens into petals, and in some modification of the colour. What are called double flowers are produced by a multiplication of the petals, as in the common varieties of the rose; and full flowers are those in which the multiplication is carried so far as to obliterate the stamens and pistil. The rose, for example, produces in a wild state only a single row of petals, surrounding a vast number of yellow stamens; but when cultivated, many rows of petals are formed at the expense of the stamens, which are proportionally diminished. Compare the dog-rose of our hedges with the cabbage or Provence rose of our gardens; or compare the single anemones and ranunculuses of the Levant with the finest Dutch varieties, and see what cultivation has produced. In the one case there are only five diminutive petals; in the other we have hundreds. The wild anemone is scarcely an inch across; the Dutch have reared specimens more than six inches in diameter.

'With regard to colour,' says Dr Lindley, 'its infinite changes and metamorphoses in almost every cultivated flower can be compared to nothing but the alterations caused in the plumage of birds, or in the hairs of animals by domestication. No cause has ever been assigned for these phenomena, nor has any attempt been made to determine the cause in plants. We are, however, in possession of

No. 15.

the knowledge of some of the laws under which change of colour is effected. A blue flower will change to white or red, but not to bright yellow; a bright yellow flower will become white or red, but never blue. Thus the hyacinth, of which the primitive colour is blue, produces abundance of white or red varieties, but nothing that can be compared to bright yellow—the yellow hyacinths, as they are called, being a sort of pale yellow ochre verging to green. Again, the ranunculus, which is originally of an intense yellow, sports into scarlet, red, purple, and almost any colour but blue. White flowers which have a tendency to produce red will never sport to blue, although they will to yellow; the roses, for example, and the crysanthemums.'

The changes which the fruit or seed undergoes are also very numerous and obvious. Where, for instance, is there a native grain like wheat, or a native fruit like the apple? In a wild state, the seeds of our cereal grains (wheat, barley, oats, &c.) are thin and meagre; by proper cultivation they are rendered large, plump, and full of farina, so as to become the most important articles of human subsistence. Wheat is now believed to be a transmuted form of the Ægilops, a grass found on the shores of the Mediterranean, and differing from it chiefly in the size of the grain and the number of awns with which it is furnished. The experiments of M. Favre, repeated by others, seem to shew that the number of awns is rapidly reduced by cultivation, whilst the size of the grain is increased. The small globular sour crab of our hedges is the original of the numberless varieties of apples now cultivated by gardeners, each var-



iety differing somewhat in size, shape, colour, and flavour. In like manner with the sloe, which few could detect as the parent of our purple, yellow, and white plums; and so also with the wild cherry, and almost every species of our cultivated fruits and seeds. We not only can change their size, colour. and other external char-

acters, but can transform them from dry, acrid, and noxious fruits, to fleshy, pleasant, and wholesome products.

CLIMBING PLANTS OF THE TROPICS.

The climbing plants or lianas of the tropics are even more wonderful than the palms which rise above the other trees of the forest, and fling out their great and graceful leaves in the upper air. climbing plants of temperate climates are either herbaceous plants or small shrubs, but some of those of the tropics attain the dimensions of trees, with stems thicker than a man's body. They surmount the tallest trees, grasping their stems in firm convolutions, and often descending from the top in great festoons, passing to another and another tree, which they include in their toils, and rising again to the summit, winding the whole into a maze of living net-work. The trees which support these climbers are often killed by their constriction, but the firm woody stems of the climbers retain their place, and form a wonderful living mound. Some of the palms are climbers, and among these are the rattans of the East Indies, which with stems always reed-like and slender, sometimes attain the prodigious length of 1000 feet.

GIANT PLANTS.

There are some orders of plants of larger growth than others, and there are species of such colossal dimensions as to have long been not only subjects of wonder, but of religious reverence and historical association. Among these may be ranked the Adansonia, the banyan, and others of the tropical forest, trees of gigantic size, and also certain natives of temperate regions, as pines, oaks, planes, and chestnuts, which occasionally attain a size so unusual, that they appear more like several trees united by a sort of Siamese brotherhood than individual trunks. Such individuals may be regarded not only as giants, but as patriarchs; not only as emblems of strength, but as emblems of duration.

The Adansonia, which derives its name from the French botanist Michel Adanson, belongs to the Bombacea, or silk-cotton-tree tribe, and is justly regarded as the Colossus of the vegetable kingdom. It is a native of Senegal, Guinea, and the countries on the west coast of Africa; but specimens have been found growing freely both in India and South America. Besides its botanical appellation, the Adansonia is known as the baobab, the monkey-bread-tree, and the Egyptian sour gourd. The height of the trunk is moderate, varying from 50 to 60 feet, but its lateral bulk is almost incredible.

In 1756, Adanson met with trunks in Senegambia having a diameter of 30 feet and a circumference of 90; and Mr Gilberry observed one having a circumference of 104 feet, though its height did not exceed 30. The branches are of considerable size, and 50 or 60 feet long; the central branch rises perpendicularly, the others spread

round it in all directions; and their extremities being bent towards



Adansonia, or Baobab Tree.

s being bent towards the ground by the weight of foliage, the whole tree presents the appearance of a vast hemispherical mass of verdure 140 or 150 feet in circumference (see fig.). Indeed, a full-grown Adansonia seen at a distance almost presents the appearance of a forest; and it is not till the spectator has satisfied himself

by a near inspection, that he can be convinced that the luxuriant verdure proceeds from a solitary stem. The leaves, which closely resemble those of the horse-chestnut, are of a deep green: and it is said that Cape Verd (literally, the Green Cape) takes its name from the circumstance of its being clothed with these gigantic trees. The flowers are white and pendent, on drooping flower-stalks of a yard in length, and are extremely large, measuring, when fully expanded, from 4 to 6 inches in diameter. A full-grown Adansonia, clothed with its brilliant verdure and snowy blossoms, must therefore present a most magnificent spectacle; and we can fully appreciate the feelings that prompt the untutored negro to worship under its shade, and hail the opening of the flowers with a pious good-morning. Another consideration connected with the baobab is the great age to which many individuals must arrive, as may be inferred from their enormous bulk. It is no doubt a very rapid grower, for a specimen in the Botanic Garden at Calcutta is said to have attained a circumference of 18 feet in twenty-six years; but when we multiply this ten or twenty fold, and make allowance at the same time for the slower increase of maturity, we can readily believe that many specimens now extant may have witnessed the revolutions of more than 2000 years. Adanson indeed looks upon it as the oldest living monument on the globe; and taking his data from two specimens which he examined in 1761, he calculates that some of the baobabs then flourishing on the coast of Africa might have existed for 5000 years! This is obviously an erroneous calculation, founded on the increase by annual layers, as witnessed in temperate regions—a circumstance which is by no means constant, as there may in the tropics be two, three, or even more layers formed in one year, according to seasonal influences; but even after the necessary deductions, we are compelled to regard the Adansonia as alike the monarch and patriarch of the vegetable kingdom.

Among the many astonishing features of Indian vegetation, the Banyan, or sacred fig of the Hindus, is one of the most curious and beautiful. Its branches bend towards the ground, take root, and thus form separate trees, which successively cover a vast space of ground, and furnish an agreeable and extensive shade in warm climates. Milton thus correctly describes its habit, where he speaks of its leaves as being those of which Adam and Eve 'made themselves aprons:'

'Soon they chose
The fig-tree; not that kind for fruit renowned—
But such as at this day, to Indians known,
In Malabar or Deccan, spreads her arms,
Branching so broad and long, that in the ground
The bended twigs take root; and daughters grow
About the mother-tree, a pillared shade,
High overarched, and echoing walks between.'

The banyan is the Ficus Indica of botanists, and belongs to the Moraceæ, or fig and mulberry tribe. A specimen is mentioned by Marsden as growing in Bengal, which had fifty or sixty stems, with a total diameter of 370 feet, and which afforded at noon a shadow the circumference of which was 1116 feet. There is another yet more gigantic still standing on the island of Nerbuddah, near Baroach, called the *Cubbeer Burr*. The tradition of the natives is, that this tree is 3000 years old; and it is supposed by some to be the same that was visited by Nearchus, one of Alexander the Great's officers. The large trunks of this tree amount in number to 350; the smaller ones exceed 3000; and each of these is continually sending forth branchlets and hanging roots to form other trunks. The circumference of this remarkable plant is nearly 2000 feet. Roxburgh states that he found the banyan in the greatest perfection and beauty about the villages on the skirts of the Circar Mountains, where he saw some individuals 500 yards round the circumference of the branches, and 100 feet high; the principal trunk being more than 20 feet to the branches, and 8 or 9 feet in diameter. Though undoubtedly a tree of wonderful dimensions, the banyan must be regarded as a succession of independent stems rather than as a single individual; for it is evident that some of the earlier rootingbranches may exceed the parent trunk in size, and that any of them being once rooted, would live and send forth new branches in arches and colonnades though the original stem were utterly destroyed.

The Dracana or Dragon Tree is another of those gigantic plants which give character to the vegetation of intertropical countries. It is found abundantly in the East India Islands, in the Canaries and Cape Verds, and along the coast of Sierra Leone. In ordinary cases, the erect trunk of the dracana does not exceed fourteen feet in height, but divides into a number of short branches, each

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ending in a tuft of spreading sword-shaped leaves, pointed at the extremity. The tree is palm-like in its growth, but belongs to the asparagus tribe of Jussieu, or, according to Dr Lindley, to the Liliacea. It does not increase by external layers like the oak and fire but enlarges after the manner of the palm, and therefore has not a trunk of true durable timber; nevertheless, some specimens have been known to grow to an enormous size, and to endure for many centuries. The most celebrated specimen on record is that of Orotava, in the island of Teneriffe, which in 1799 was found by Humboldt to be 45 feet in circumference, and about 50 or 60 feet in height. 'The trunk,' says Humboldt, 'is divided into a great number of branches, which rise in the form of a candelabra, and are terminated by tufts of leaves, like the yucca which adorns the valleys of Mexico. It still bears every year both leaves and fruit. Its aspect feelingly recalls to mind "that eternal youth of nature" which is an inexhaustible source of motion and of life.' Though continuing thus to grow, this tree had not perceptibly increased in size during the life of the oldest inhabitant, as its top branches, from the brittle nature of the wood, were constantly being broken down by the winds. In 1819, the greater part of its top was blown down; and in 1822 the venerable trunk was entirely laid prostrate by a tempest. The enormous bulk of this wonderful vegetable was noted so early as 1402 by Bethencourt, according to whose description it was then as large and as hollow as it was found by Humboldt; hence the latter infers that, along with the Adansonia, the dracæna of Orotava was one of the oldest inhabitants of our globe.

The Courbarils of the primeval forests of Brazil are thus spoken of by Von Martius: 'The place where these prodigious trees were found appeared to me as if it were the portal of a magnificent temple, not constructed by the hands of man, but by the Deity himself, as if to awe the mind of the spectator with a holy dread of His own presence. Never before had I beheld such enormous trunks: they looked more like living rocks than trees; for it was only on the pinnacle of their bare and naked bark that foliage could be discovered, and that at such a distance from the eye, that the forms of the leaves could not be made out. Fifteen Indians, with outstretched arms, could only just embrace one of them. At the bottom they were 84 feet in circumference, and 60 feet where the boles became cylindrical!' We know too little of these vegetable leviathans to give a more minute account; but if they are as Martius describes, they may be justly considered as rivalling the

Adansonias both in point of age and dimensions.

Passing from trees of strange habit and growth, only familiar to the inhabitants of the tropics, we shall now advert to some which are common in European forests, and which occasionally attain dimensions little if at all inferior to the baobabs and banyans of India and Africa. Among these we may notice, in the first place,

the cypress, yew, and cedar, which belong to the Conifera, or fir tribe, and which are all remarkably long-lived and enduring. The largest known specimens of the cypress are to be met with in Mexico. At Atlexo, for instance, there is one said to be 76 feet in girth; and another at St Maria del Tuli, which is 118 feet in circumference! This is larger, certainly, than any of Adanson's baobabs: 'but,' says Humboldt, on examining it narrowly, 'M. Anza discovered that what excites the curiosity of travellers is not a single individual, but three united trunks.' There is, however, at Chapultenec, in the same region, a third cypress, which is said to be 117 feet 10 inches round; and the younger De Candolle considers it even older than any of the baobabs of Senegambia. Michaux, who published a splendid work on the forest trees of America, says that the largest stocks of the cypress are 120 feet in height, and from 25 to 40 feet in circumference above the conical base, which at the surface of the earth is always three or four times as large as the continued diameter of the trunk. In the East, the cypress is the emblem of mourning, and is generally to be found overshadowing with its dark branches the spots consecrated to the dead; and it is owing to the respect which they meet with in such situations that so many gigantic and venerable specimens have been allowed to survive. Nearly allied to the cypress, and applied to the same funereal purposes, is the yew-tree of our own country, which often attains to enormous dimensions. That of Hedsor, in Bucks, is about 27 feet in girth, and is still in full health and vigour; that of Fortingal, in Perthshire, mentioned by Pennant in 1770, was 211 feet; those of Crowhurst, in Surrey, were more than II feet; and those of Fountain Abbey, in Yorkshire, well known so early as 1155, about the same dimensions. Respecting the cedar of Lebanon, Maundrell tells us that when he went into the East, a few old trees were then growing on the loftiest parts of the mountains. Measuring one of the largest, he found it to be 36 feet in girth, and III feet in the spread of its boughs. About 18 feet from the ground it divided into 5 limbs, each of which equalled in bulk an ordinary tree. The cedar, like the yew and cypress, is an evergreen, and occupies a pre-eminence over all other trees in the East in point of beauty and duration.

Belonging to the same natural order we may mention the Norfolk pine, or kauri, of the New Zealanders, which occasionally grows to a very large size. Mr Terry, in his recently published work on New Zealand, mentions two extraordinary individuals which he saw on the eastern coast, near Mercury Bay, and which were supposed to be the largest on the island. The available trunk of one, which was cut down and brought to England, was 150 feet in length, and 25 feet in circumference at the base; the other is still standing, and is called by the natives the Father of the kauri. 'Although almost incredible, it measures 75 feet in circumference at its base! The

height is unknown, for the surrounding forest is so thick, that it is impossible to obtain an accurate view of the tree. There is an arm some distance from the trunk, which measures 6 feet in diameter at its junction with the main stem.' Some of our own native pines, such as those of Glenmore and Athole, have reached to a great age and size; but they are as mere saplings compared with this 'Father of the kauri.'

The Wellingtonia gigantea, a pine of California, exceeds in size all others of its family, all other trees of temperate climates, and indeed almost all those of the tropics. It is found on the Sierra Nevada, in about 38° N. lat., and at an elevation of 4000 to 5000 feet above the sea. It was discovered in 1850 by a Mr Dowd, who, in hunting deer, came with astonishment into the midst of what is now known as the Mammoth Tree Grove of Calaveras. For several years the trees of this group were supposed to be the only trees of their kind in existence, but other groups were afterwards found in



Cone and Leaves of the Wellingtonia gigantea.

other localities, and individual trees in different parts of the district. A tree which was felled in the Calaveras grove measured 302 feet in height, and 96 feet in circumference at the ground. It was sound to the centre. It must have been of very great age, and was probably a tree of considerable size in the time of Solomon. Five men were employed for twenty-two days in felling it, which was accomplished by boring into it with great augers, and sawing between the auger holes. When it had been cut through, it remained steadfast in its erect position, till great wedges were driven in, a work of more than two days, when at last it fell. The amount of solid timber in this tree has been calculated at 500,000 cubic feet. On the stump, which

is nearly ten yards in diameter, a round wooden house has been erected, which has sometimes been used for dancing, and for theatrical performances. Within an area of fifty acres, the Calaveras grove contains one hundred and three trees of large size, twenty of which exceed twenty-five feet in diameter at the base, and one is 321 feet in height. A still larger one has fallen and lies half buried in the soil. Three hundred feet from its base, it was broken by striking against another large tree in its fall, and is there eighteen feet in diameter. Three trees, standing close together, are known as the Three Graces (see first page); they are of nearly equal size, and almost 300 feet in height. Trees of similar magnitude exist in the other localities where the Wellingtonia has been found. One of a large group of trees at Mariposa is 102 feet in circumference. The Wellingtonia has not a great umbrageous head, but a stately columnar stem, with comparatively small branches on its upper part, and foliage somewhat similar to that of the Arbor vitae. It has been introduced into this country, to the climate of which it is very suitable, and many fine young trees are already to be seen. Plants are common in our nurseries.

The oak, chestnut, and beech, though differing considerably in external aspect, belong to the same natural order, namely, Corylaceæ, or Cupuliferæ, so called from the cup or cupule in which the fruit is contained, as is well illustrated by the common acorn. They are excellent timber trees, generally flourishing for centuries, and growing to a large size, sometimes attaining proportions truly colossal, and outliving dynasties and kingdoms. As a complete record of celebrated oaks would require several volumes, we shall merely allude to some of the more remarkable found in Britain. The Shire Oak, which grew near Worksop, deserves honourable mention, in respect both of its own dignity and that of its situation. In point of grandeur, few trees equalled it. Its boughs overspread a space of 90 feet in diameter-an area capable, on mathematical calculation, of containing 235 horse. It stood on a spot where the counties of York, Nottingham, and Derby unite, and spread its shade over a portion of each. From the honourable station of thus fixing the boundaries of three large counties, it was equally respected through the domains of them all, and was known far and wide by the honourable distinction of the Shire Oak, by which appellation it was marked on all the larger maps of England. Fairlop, known for centuries as the monarch oak of Hainhault Forest, in Essex, has attained dimensions even still more gigantic. The tradition of the country traces it half-way up the Christian era. It is still a noble tree, though it has now suffered greatly from the depredations of time. About a yard from the ground, where its rough fluted stem is 36 feet in circumference, it divides into eleven vast arms, yet not in the horizontal manner of an oak, but rather in that of a beech. Beneath its shade, which overspreads an area of 300 feet in circuit, an annual

fair was held on the 2d of July, and no booth was suffered to be erected beyond the extent of its boughs. 'Honours, however,' says Kirkby, 'are often attended with inconveniences, and Fairlop has suffered from its honourable distinctions. In the feasting that attends a fair, fires are often necessary; and no place seemed so proper to make them in as the hollow cavities formed by the heaving roots of the tree. This practice has brought speedier decay on Fairlop than it might otherwise have suffered.' The next we shall mention is Damory's Oak, which formerly grew not far from Blandford, in Dorsetshire, and five or six centuries ago was probably in its maturity. At the ground, its circumference was 68 feet, and 17 feet above the ground its diameter was four yards. As this vast trunk decayed, it became hollow, forming a cavity which was 15 feet wide and 17 feet high, capable of holding twenty men. During the civil wars, and till after the Restoration, this cave was regularly inhabited by an old man, who sold ale in it. The tree suffered greatly during the storm of 1703, by which several of its noblest limbs were broken down; and in 1755, the remnants of the venerable trunk were sawn asunder and sold as firewood. The Skelton Oak, near Shrewsbury, in sight of which the famous battle betwixt Henry IV. and Hotspur was fought in 1403, is still standing, and in foliage. It is 37 feet in circumference at a foot and a half from the ground, and is otherwise proportionally large. It divides into two enormous limbs, both of which have been fractured; and the lower portion of the trunk is hollowed out into a recess capable of accommodating a dozen persons.

One of the noblest trees on record is a chestnut upon Mount Ætna, though it has now lost much of its original dignity. Many travellers have taken notice of this extraordinary tree. Brydone, who wrote his account in 1771, says it had then the appearance of five distinct trees, the space between which, he was assured, had once been filled with solid timber. The possibility of this he could not at first conceive; for the five trees together spread over a space of 204 feet in diameter. At length, however, by an examination, he was convinced that at one period these had been but one mighty tree; and he found that this chestnut was of such renown, that it appeared marked in an old map of Sicily, published a hundred years before; and an account of it at that period is given by Kircher, fully corroborating its dimensions. The great chestnut which stood at Finhaven, in Forfarshire, was long accounted the largest tree in Scotland. In 1744, the measures of this remarkable trunk were taken before two justices of the peace, when the circumference at half a foot from the ground was 42 feet 81 inches. A chestnut cut down at Kinfauns Castle in 1760 was 221 feet in girth; and there is at present a beautiful chestnut at Riccarton, in Edinburghshire, full 27 feet in circumference; its branches covering an area of 77 feet in diameter. There are also several measurements of gigantic beeches

on record; but of these our space will not allow us to take even a passing glance.

GIGANTIC FLOWERS AND LEAVES.

Of the blossoms which adorn our conservatories and gardens, those of the rose, the peony, the dahlia, hollyhock, and passionflower are amongst the largest and most showy. These, however, are but mere pigmies to many that are found in other lands, where excess of light and sunshine call into existence myriads of flowers as remarkable for size as they are exuberant in colour and fragrance. One of the largest yet discovered is that of the Victoria Regia, belonging to the Nymphaacea, or water-lily tribe, the leaves of which measure above 18 feet, and its flower nearly 4 feet in circumference! It was met with in British Guiana, in 1837, by Sir Robert Schomburgk, who thus speaks of his discovery: 'It was on the 1st of January this year, while contending with the difficulties of nature, opposed in different forms to our progress up the river Berbice, that we arrived at a point where the river expanded and formed a currentless basin. Some object on the southern extremity of the basin attracted my attention. It was impossible to form any idea of what it could be; and animating the crew to increase the rate of their paddling, we were shortly afterwards opposite the object which had raised my curiosity—a vegetable wonder! All calamities were forgotten; I felt as a botanist, and felt myself rewarded. A gigantic leaf, from 5 to 6 feet in diameter, salvershaped, with a broad rim, of a light green above and a vivid crimson below, resting upon the water. Quite in character with the wonderful leaf was the luxuriant flower, consisting of many hundred petals, passing in alternate tints from pure white to rose and pink. The smooth water was covered with the blossoms, and as I rowed from one to the other, I always observed something new to admire. The leaf, on its upper surface, is a bright green, in form almost orbicular, except that on one side it is slightly bent in; its diameter measured from 5 to 6 feet. Around the whole margin extended a rim from 3 to 5 inches high; on the inside light green, like the surface of the leaf; on the outside, like the leaf's lower surface, of the brightest crimson. The calyx is four-leaved, each sepal upwards of 7 inches in length and 3 inches in breadth; at the base they are white inside, reddish brown and prickly outside. The diameter of the calyx is from 12 to 13 inches; on it rests the magnificent corolla, which, when fully developed, completely covers the calyx with its hundred petals. When it first opens, it is white, with pink in the middle, which spreads over the whole flower the more it advances in age, and it is generally found the next day altogether of a pink colour: as if to enhance its beauty, it is sweet-scented. We met the plants frequently afterwards; and the higher we advanced, the more

gigantic they became. We measured a leaf which was 6 feet 5 inches in diameter, its rim 5½ inches high, and the flower across 15 inches!'

Of more colossal dimensions than the Victoria, but inferior in organisation, is the Rafflesia Arnoldi, a native of the hot damp jungle of Sumatra. This plant grows parasitically on a kind of vine, and in structure is intermediate between the fungi and the endogens, forming one of the rhizanths, or root-flowers, which have no true stem or leaves. It was discovered in 1818 by Dr Joseph Arnold, and named after Sir Stamford Raffles, then governor of that island. The discoverer thus describes it: 'At Pulo Lebban, on the Manna river, I rejoice to tell you I met with what I consider the greatest prodigy of the vegetable world. I had ventured some wav before the party, when one of the Malay servants came running to me with wonder in his eyes, and said, 'Come with me, sir; come!—a flower, very large, beautiful, wonderful!' I went with the man about a hundred yards into the jungle, and he pointed to a flower growing close to the ground, under the bushes, which was truly astonishing. My first impulse was to cut it up, and carry it to the hut. I therefore seized the Malay's parung, and found that the flower sprung from a small root which ran horizontally (about as large as two fingers). I soon detached it. To tell you the truth, had I been alone, and had there been no witnesses, I should, I think, have been fearful of mentioning the dimensions of this flower, so much does it exceed any other I have heard of; but I had Sir Stamford and Lady Raffles with me, and Mr Palsgrave, who, though equally astonished with myself, yet are able to testify as to the truth. The whole flower was of a very succulent substance, the petals and nectary being in few places less than a quarter of an inch thick, and in some places three-quarters of an inch. It measured a full yard across, the petals being 12 inches high, and a foot apart from each other. The nectarium, in the opinion of us all, would hold twelve pints, and the weight of this prodigy we calculated to be fifteen pounds.'

Besides these floral Titans, of which we have given details, there are many other gigantic blossoms to whose dimensions we can merely advert. The flowers of the Aristolochia, or birthworts of tropical America, are often from 15 to 16 inches across, and are large enough to be drawn over the heads of the Indians, who make caps of them in their sports. The Magnolia grandiflora of North America is not less remarkable for the size of its leaves and flowers than for its lofty stature. Its trunk is commonly straight, and not unfrequently 90 feet in height, and about 3 in diameter, having a fine pyramidal head of foliage and blossom. Its leaves are like those of the laurel, but much larger, being 8 or 9 inches in length; the flowers are white, 7 or 8 inches in diameter, and of an agreeable odour. They are larger than those of any other

tree with which we are acquainted, and on detached trees are exceed-

ingly numerous, rendering the magnolia one of the most superb productions of the vegetable kingdom. The Agave Americana, which was at one time regarded as a marvel, is remarkable for its gigantic panicle of flowers. This plant is often known by the name of the 'Great American Aloe,' because resembling the aloes in its leaves; but it belongs to the natural order Amaryllidaceæ, and has little in common with the aloes. flowering of the agave was considered to be of rare occurrence (taking place only once in a century); but this has been disproved —the plant, in good condition, producing flowers every seven or ten years. When these do come forth, they present a most interesting spectacle, the stem rising from 30 to 40 feet high, and bearing hundreds of greenish-white flowers on an elegant branched spike. The panicle, or bunch of flowers, is often 15 feet in height, and is in this respect without a parallel.

We have already alluded to several gigantic leaves, but all of them fall infinitely short of the dimensions attained by the leaves



Agavè Americana.

of the palm family. The largest of which we have an authentic account is that of the Talipat palm, which grows luxuriantly among the mountains of Ceylon. Knox quaintly speaks of this tree as being 'as tall as a ship's mast, and very straight, bearing only leaves, which are of great use to the inhabitants of Ceylon: one single leaf being so broad and large, that it will cover fifteen or twenty men, and keep them dry when it rains.' The Rev. H. Caunter says he has seen specimens of the Talipat 200 feet in height, the leaves of which were 11 feet in length, and 16 in breadth, and the fruit about the size of a twenty-four pound shot. While on the banks of the Calamy, his attention was particularly arrested by several rafts on the river, over which a complete canopy was thrown, formed of a single leaf of the Talipat, that entirely covered both freight and crew!

MINUTE PLANTS.

As we have vegetables celebrated for their gigantic size, so we have others remarkable for the minuteness and delicacy of their proportions. Nature knows no limit either in the ascending or descending scale: she is as wonderful and perfect in the formation of a fungus, which the unassisted eye cannot detect, as she is in the structure of the oak and cedar, which command our veneration. With the characters of the latter the botanist has been long familiar, because their dimensions more forcibly arrest the eye of sense; to the structure of the former he is only beginning, as it were, to have

access through the lenses of the microscope.

One of the most extraordinary of microscopic plants is the Achlya prolifera, whose soft silky threads may sometimes be seen adhering to the surface of gold-fishes, and covering them, as it were, with a This appearance is generally looked upon as a whitish slime. species of decay or consumption in the animal itself, and not as an external clothing of parasitic plants. It is, however, a true vegetable growth, each individual consisting of a single filament, with a minute pear-shaped ball on the top, containing numerous grains, which are the seeds or embryos of future plants. The green slime, which in summer gathers over the surface of stagnant water, is of the same order of vegetation; namely, Conferva—an order entirely dependent upon water for their growth and propagation, and to which drought is certainly fatal. The achlya has been examined by Dr Unger, who describes it, when at its full growth, as consisting of transparent threads of extreme fineness, packed together as closely as the pile of velvet, and much resembling, in general appearance, certain kinds of mouldiness. When placed under the microscope—for the unassisted eye can perceive nothing of its true construction-each thread is terminated by the pear-shaped ball already alluded to, which is about I-1200th of an inch in diameter, and consists of a single cell filled with a mucilaginous fluid, in which float the procreative granules. The contents of this cell are seen to be in constant motion from the earliest stage of their existence; but as they advance to maturity, the mucilage disappears, and then the motion of the granules becomes more rapid and violent, till ultimately they burst their way through the cell, and are transferred to the water, there to perform their circle of being, and to give birth to new races of granules. All this takes place with such amazing rapidity, that we are assured an hour or two suffices for the complete development and escape of the spores; so that we need not wonder when we are told that, once established, the Achlya prolifera will often complete the destruction of a healthy gold-fish in less than twelve hours.

Another of these curious parasites is the Mucor mucedo, which

abounds in bruised fruit and other substances containing fecula or sugar. It belongs to that section of the fungi generally known under the name of moulds, of which that common on stale bread, and the rust, mildew, and smut in wheat, are familiar examples. These moulds are of all shapes—simple, branched, spherical,

radiating, presenting a surface like velvet, or a net-work of the most delicate texture; and of all hues-green, blue, yellow, and vermilion. The Mucor mucedo consists of a single filament, headed by a very minute ball-shaped receptacle. In the young state, this little ball is covered by a thin membrane, which bursts as the spores arrive at Mucor mucedo, highly magnified. maturity, which then present themselves



like so many dusty particles congregated round a central nucleus. Being so minute, the slightest touch or the gentlest breath of air is sufficient to scatter them in thousands; and thus the mucors increase with amazing rapidity. As they require abundant nutriment, it is only on succulent parts that they luxuriate, and for this reason they are principally injurious to fruits—the slightest injury from an insect affording them a basis for propagation.

From the examples we have just given, it must not be supposed that plants of microscopic dimensions are to be found only among parasitic fungi. There are others equally minute, and still more wonderful in the aggregate, which are of independent growth, and which twine and interlace their tiny branches into a net-work as tough as the strongest felt, and extending over many yards of surface. These are the fresh-water confervæ, of which the substance called 'water-flannel' may be taken as a well-known example. specimen was thus described by a correspondent of the Gardeners' Chronicle: 'A friend put into my hand the other day a yard or two of what seemed a coarse kind of flannel, gray on one side, and greenish on the other, and a full quarter of an inch in thickness. It had been thrown up by the river Trent, and washed ashore in vast sheets. Those who had seen it pronounced it a manufactured article; and so it was, but by the hand of nature. When this substance is handled, it is harsh to the touch, although composed of the finest threads. To the naked eye, it presents no character by which it may be known from any coarse and loosely-woven cloth. The microscope reveals its nature. It is then found to consist of myriads of jointed threads, whose joints are compressed alternately sideways and vertically; they are here and there transparent, but for the most part opaque and rough to the eye. The white side is more opaque than the other, and more unexaminable; but if a little muriatic acid be added to the water in which the fragments of water-flannel float, copious bubbles of air appear. These are bubbles of carbonic acid,

extricated by the action of the muriatic acid on a coating of carbonate of lime, with which the plant is more or less completely invested. If, after this operation, the threads are again examined, the contents of the joints become visible: in the green parts of the flannel, they were filled with an irregular mass of green matter; in the white part, with myriads of globules, intermixed with a shapeless substance. The globules are the seeds. If a little iodine is then given to the flannel, it is readily absorbed; and the contents, shapeless matter, globules, and all, become deep violet, shewing that all this substance is starch. Hence it appears that the water-flannel is a microscopic plant, composed of jointed threads, secreting carbonate of lime on their surface, and forming seeds composed of starch within them. And when we consider that the joints are smaller than the eye can detect, while each contains from fifty to one hundred seeds, it may easily be conceived with what rapidity such a plant is multiplied. Besides which, as their contents consist to a great extent of starch, the most readily organisable of vegetable materials, the means of growth with which the plant is provided are far more ample than anything we know of in the higher orders of the vegetable kingdom. This vegetable swarms on stagnant pools, where it lives on the decaying matter which all waters more or less contain, and thus tends to their purification, the while that its own substance forms food for myriads of animalcules that wander over its trackless fields and endless mazes.

Here, however, we must close our record of microscopic plants, which, it will be seen, belong chiefly to the mosses, lichens, fungi, and other forms of flowerless vegetation. Zoologists tell us, when speaking of animalcules, that there is not a drop of stagnant water, not a speck of vegetable or animal tissue, but has its own appropriate inhabitants. The same may be remarked of plants; for we cannot point to a speck of surface, unless chilled by everlasting cold, or parched by continuous drought, that has not its own peculiar vegetation. The spores or seeds of these minute parasites are almost infinitesimally small: they are floating above and around us, unperceived by the naked eye, ready to fall and germinate wherever fitting conditions are presented. Nay, as certain changes in animal tissue are ascribed to animalcules, certain changes in organised substances, such as fermentation, are ascribed to vegetable growth. Yeast is a true vegetable, consisting of minute organised cells or spherules, which propagate with amazing rapidity so long as they find their proper nutriment in the fermenting liquid. Nor is there anything more incredible in the fact, that the little globular yeastplant should extract its nutriment from the fluid on which it floats, than that the water-flannel should extract its starch or lime from the water which it covers.

PECULIAR PLANTS.

Under this head we comprehend such plants as stand out in bold relief from the rest of the vegetable kingdom for some noted peculiarity in structure, habits, or properties. It is true that every plant has its own specific distinctions; but there are several which seem to stand apart as the curiosities of vegetation, just as the ornithorhyncus and giraffe stand isolated among animals. They have no congeners in the peculiarity that renders them remarkable.

The cow-tree, or palo de vaca of South America, is one of the most interesting of this class. It is known to botanists as the Galactodendron utile, or useful milk-tree, and belongs to the Urticacea, or nettle tribe, the herbaceous members of which have their juice thin and watery, while in the ligneous species it is milky and viscous. The cow-tree is a native of the Caraccas, and grows in rocky situations at an elevation of nearly 3000 feet. It is thus described by Baron Humboldt: 'On the barren flank of a rock grows a tree with dry and leathery leaves; its large woody roots can scarcely penetrate into the stony soil. For several months in the year not a single shower moistens its foliage. Its branches appear dead and dried; yet, as soon as the trunk is pierced, there flows from it a sweet and nourishing milk. It is at sunrise that this vegetable fountain is most abundant. The natives are then to be seen hastening from all quarters, furnished with large bowls to receive the milk, which grows yellow, and thickens at the surface. Some drain their bowls under the tree, while others carry home the juice to their children; and you might fancy you saw the family of a cowherd gathering around him, and receiving from him the produce of his kine. The milk obtained by incisions made in the trunk is glutinous, tolerably thick, free from all acridity, and of an agreeable and balmy smell. It was offered to us in the shell of the trituros or calabash tree. We drank a considerable quantity of it in the evening before going to bed. and very early in the morning, without experiencing the slightest injurious effect. The viscosity of the milk is the only thing that renders it somewhat disagreeable. The negroes and free labourers drink it, dipping into it their maize or cassava bread.' Sir R. Ker Porter describes the palo de vaca as a tree of large dimensions, mentioning that he measured one somewhat more than 20 feet in circumference at about 5 feet from the root. This colossal stem ran up to the height of 60 feet perfectly uninterrupted by either leaf or branch, when its vast arms and minor branches, most luxuriantly clothed with foliage, spread on every side fully 25 or 30 feet from the trunk, and rose to an additional height of 40 feet, so that this stupendous tree was quite 100 feet high in all. Others were seen at a distance of still larger dimensions.

Equal in utility with the cow-tree in yielding an agreeable

beverage, but belonging to a very different order, is the ravanala, or traveller's tree of Madagascar. This curious plant belongs to the same tribe as the plantain and banana; namely, the Musaceae, and is known to botanists by the name of Urania speciosa. It forms a striking feature in the scenery, as it does in the economy of its native country, and is thus described by Mr Backhouse in his Visit to the Mauritius and South Africa: 'Clumps of these trees, composed of several stems rising from the same root, are scattered over the country in all directions. The trunks, or, more properly, root-stocks, which are about 3 feet in circumference, sometimes attain to 30 feet in height; but whether of this elevation, or scarcely emerging above ground, they support grand crests of leaves of about 4 feet long and I foot wide, but often torn into comb-like shreds. The head is of a fan-like form, and the flowers, which are not striking for their beauty, are white, and produced from large horizontal green sheaths. The foot-stalks of the leaves, which are somewhat shorter than the leaves themselves, yield a copious supply of fresh water, very grateful to the traveller, on having their margin cut away near to the base, or forced from contact with those immediately above them, especially those about the middle of the series. The root-stock is of a soft cellular substance, and the fruit, which resembles a small banana, is dry, and not edible. This remarkable vegetable production is said to grow in the most arid countries, and thus to be provided for the refreshment of man in a dry and thirsty land. Probably the water may originate in the condensation of dew, and be collected and retained by the peculiar structure of the leaf: it has a slight taste of the tree, but is not disagreeable.'

The Pitcher-Plant, or Nepenthes distillatoria, is another of those fluid-containing plants whose structure and adaptation strike us with wonder and admiration. It is the type of the recently established order Nepenthacea, and is commonly met with in Ceylon and other islands of the East, where it is known by the appropriate name of pitcher-plant, on account of the singular flagon-shaped appendage which holds the water. 'Being the inhabitant of a tropical climate,' says Barrow in his Cochin-China, 'and found on the most dry and stony situations, nature has furnished it with the means of an ample supply of moisture, without which it would have withered and perished. To the foot-stalk of each leaf, near the base, is attached a kind of bag, shaped like a pitcher, of the same consistency and colour as the leaf in the early stage of its growth, but changing with age to a reddish purple. It is girt round with an oblique band or hoop, and covered with a lid neatly fitted, and movable on a kind of hinge or strong fibre, which, passing over the handle, connects the vessel with the leaf. By the shrinking or contracting of this fibre. the lid is drawn open whenever the weather is showery or dew falls, which would appear to be just the contrary of what usually happens in nature, though the contraction probably is occasioned by the hot,

dry atmosphere; and the expansion of the fibre does not take place till the moisture has fallen and saturated the pitcher. When this is the case, the cover falls down, and it closes so firmly, as to prevent any evaporation taking place. The water, when gradually absorbed through the handle into the foot-stalk of the leaf, gives vigour to the leaf itself, and sustenance to the plant. As soon as the pitchers are exhausted, the lids again open, to admit whatever moisture may fall; and when the plant has produced its seed, and

the dry season fairly sets in, it withers, with all the covers of the pitchers standing open. The accompanying figure represents a leaf of the nepenthes, with its curious appendage and fittings, than the structure of which



nothing could be more thoroughly adapted for accomplishing the end in view.

Under this head may be mentioned the shea or butter tree, from the kernel of which the Africans extract a fatty substance that is whiter, finer than the best butter made from cow's milk, and equal to it in flavour, with this advantage, that it will keep without salt for many months; the tallow-tree of China, which yields a waxy substance used in the manufacture of candles; the fruit of the candleberry myrtle of North America, which abounds in a similar product, and is used for the same purpose; the India-rubber-tree, from the thickened juice of which caoutchouc is obtained; the bread-fruit, and many others; but as these have been noticed in various popular works, and as our space is limited, we pass on to the curious phenomena of

HEAT AND LUMINOSITY IN PLANTS.

We are aware that warm-blooded animals have the power of keeping up a certain temperature within them, which varies at certain stages of their growth, and perhaps periodically. This result is obtained by respiration—the oxygen of the atmosphere uniting with the carbon of their blood, and producing a species of combustion. The more fresh air we breathe, the greater the heat of our bodies, so long as we take proper food to afford the carbon. A similar though less understood phenomenon seems to take place in the respiration of plants. Heat is always disengaged when gaseous products are liberated; and as vegetables respire, however slowly, a certain degree of heat must be produced during that process. In germination, heat is sensibly evolved: a piece of ice placed on a

growing leaf-bud dissolves, when it would remain unchanged in the open air; and experiment has proved that the surface of growing plants is three or four degrees higher than the surrounding medium. Again, the internal temperature of a large trunk is always higher than the surrounding atmosphere; and though young shoots are sometimes frozen through, the general structure of the wood and bark is such as to conduct heat so slowly, that the internal warmth is never reduced beyond what seems necessary to vitality. During germination, this heat is most perceptible; and though it be rapidly dissipated by the extent of surface exposed to the air, 110 degrees have been noted during malting, and 87 in the flower of a geranium, when the atmosphere was only at 81. Heat is evolved, in a remarkable degree, by the flowers of some of the species of Arum. There is a South American species, the heat of the flower of

which is very sensible to the human hand.

The luminosity of plants—that is, the evolution of light either from living or dead vegetable structure—is a still more curious phenomenon. Flowers of an orange colour, as the marigold and nasturtium, occasionally present a luminous appearance on still, warm evenings; this light being either in the form of slight electric sparks, or steadier, like the phosphorescence of the glowworm. Thus the tube-rose has been observed in sultry evenings, after thunder, when the air was highly charged with electric fluid, to dart small scintillations of lurid flame in great abundance from such of its flowers as are fading. Sometimes the leaves emit the light, as appears by the following record: 'In the garden of the Duke of Buckingham at Stowe, on the evening of Friday, September 4, 1835, during a storm of thunder and lightning, accompanied by heavy rain, the leaves of the flower called Enothera macrocarpa, a bed of which is in the garden immediately opposite the windows of the manuscript library, were observed to be brilliantly illuminated by phosphoric light. During the intervals of the flashes of lightning the night was exceedingly dark, and nothing else could be distinguished in the gloom except the bright light upon the leaves of these flowers. The luminous appearance continued uninterruptedly for a considerable length of time, but did not appear to resemble any electric effect.' Certain fungi which grow in warm and moist situations produce a similar phosphorescence; and decaying vegetables, like dead animal matter, have been observed to emit the same kind of luminosity. From these examples, it would appear that the light was sometimes due to electricity, and sometimes to a true phosphorescence, like that of the glowworm. Luminosity may, however, be produced by actual combustion of the volatile oils, which are continually flying off from certain plants: those of the Dictamnus albus will inflame upon the application of a match, so that the bush may thus be enveloped in flames, and yet not be consumed.

For further interesting information upon this subject, the reader is referred to Dr Phipson's work on *Phosphorescence*.

MOTION AND IRRITABILITY IN PLANTS.

There is no difficulty in understanding what is meant by motion and sensation in animals; they move by muscular contractions and expansions, and feel through their nervous structure. When, however, we speak of motion and irritability in plants, the phenomena assume a more puzzling aspect. Vegetables have, no doubt, woody fibres, sap vessels, spiral vessels, &c.; but then these have no affinity to the veins or muscles of animals. They may serve the same purposes in their economy, but it would be transgressing all rules of sound science to establish an identity between the two sets of organs; to call, for example, these vessels the nerves of plants, and to ascribe to them the faculty of sensation, when there is nothing beyond the faintest analogy between their structures. Although plants may not feel, however, as the higher animals do, which have a regular nervous structure and a brain, yet they may possess an irritability analogous to, or even identical with, that possessed by polyps and sponges. Polyps have no discernible nervous structure, yet they seem to feel, to contract, and expand at will; and so may the vitality of plants depend upon the existence of an irritability, if not similar, at least analogous. It is a beautiful and exalting idea, certainly, to believe in the sensation and enjoyment of vegetable life; to people the fields and forests with structures rejoicing in the light and sunshine of summer, exulting in the reproduction of their kind, and becoming dormant during the rigours of winter; to feel and declare with the poet—

> 'And 'tis my faith that every flower Enjoys the air it breathes.'

Science, however, is more rigid and cautious than poetical fancy; and, in the present state of our knowledge, little more can be done

than merely to describe the phenomena.

The principal phenomena of vegetable irritability may be divided into three kinds—those caused by atmospheric influence, those depending upon the touch of other bodies, and those which appear to be perfectly spontaneous. Atmospheric influence occasions the closing of the leaves over the part of the tender growing shoot at night, as may be observed in the chickweed and other common plants, which are then said to sleep. The folding of some flowers in the absence of the sun, and the opening of others as soon as that luminary has withdrawn its beams, are ascribable to a similar cause. The white marigold closes its flowers on the approach of rain, and the dwarf celandrina folds up its bright crimson corolla about four o'clock every afternoon. The evening primrose, on the contrary,

will not open its large flowers till the sun has sunk below the horizon; and the night-blowing cereus only expands its magnificent blossoms about midnight. Some flowers are so regular in their hours of opening and shutting, that Linnæus formed what he called Flora's Time-piece, in which each hour was represented by the

flower which opened or closed at that particular time.

The irritability produced by external touch is a familiar, but little understood phenomenon. The movements of the sensitive plant are well known; and it is also known that if the ripe seed-vessels of the noli-me-tangere be touched in the slightest manner, they will open with elasticity, and scatter their contents. The reservoirs which contain the milky juice of the wild lettuce are so remarkably irritable, that the gentlest touch is sufficient to cause it to be ejected from them with considerable force. When this plant is about to flower, if an insect happens to crawl over the surface of the stalk anywhere near to its summit, a jet of viscous milk is propelled, which, if it happens to strike the tiny intruder, glues him to the spot.



Venus's Fly-trap, and Sundew.

In the same manner the fruit of the squirting cucumber throws out its seeds, and the moist pulp in which they are contained, with great violence, and to a considerable distance. The stamens of the barberry, when touched with a pin, spring forward, so that they come in contact with the stigma, after which they soon return to their proper position. The most remarkable instance of irritability by contact is that

exhibited by Venus's fly-trap, Dionaa muscipula, a native of Canada. and nearly allied to the common sundew of the British commons. Its flowers have nothing remarkable about them, except that their petals roll up when they are about to decay; but the leaves are very curiously constructed. They have broad leaf-like petioles, at whose extremity are two fleshy lobes, which form the real leaf, and which are armed with strong sharp spines, three on the blade of each lobe, and a fringe of longer spines round the margin, as is shewn in the preceding figure. When an insect touches the base of the central spines, the leaf collapses, and the poor intruder is caught, being either impaled by the central spines, or entrapped by the others. The leaf then remains closed, the fringe of long spines being firmly interlaced and locked together, till the body of the insect has wasted away. This apparatus being the nearest approach to a stomach which has been yet observed in plants, an experiment was tried some years ago of feeding a dionæa with very small particles of raw meat, when it was found that the leaves closed in the same way as they would have done over an insect, and did not open again till the meat was consumed.

The spontaneous movements of plants are much more difficult to be accounted for than those occasioned by atmospheric influence, or by external touch. We can fancy light and heat contracting or dilating the vessels, and thus occasioning flowers to open or shut, and leaves to fold or unfold; but plants have some movements for which there is apparently no external cause. The Hedysarum gyrans, for example, has compound leaves, the terminal leaflet of which never moves except to fold itself close down to its own stalk; but the side leaflets have such eccentric movements, as to render it difficult, if not impossible, to explain them, and which might appear, indeed, to a fanciful mind as though the whole plant were actuated by a feeling of caprice. Generally, all the leaflets twist and whirl themselves about in an extraordinary manner, though the air of the house in which they grow is perfectly still; but frequently the leaflets on only one side will be affected, and sometimes only a single leaflet will move, or all will become motionless together; and when this is the case, it is quite in vain to attempt to set them again in motion by touching them; though sometimes in a moment, as if from the pure love of mischief, after the touching has ceased, the leaflets will begin to move again as rapidly as before. In like manner the side leaflets frequently continue their eccentric movements all night, while the terminal leaflet remains quietly folded up, and apparently fast asleep. M. Dutrochet ascribes all these movements to an interior and vital excitation; indeed life appears to be intimately connected with irritability, as the latter quality exists only in plants in a vigorous condition.

The vitality of plants may be destroyed by giving them deleterious or poisonous substances. Excess of manure will kill any plant. An

apple-tree or gooseberry-bush dies from a large dose of liquid manure. Some curious experiments made by Marcet and Macaire further illustrate this subject. Common kidney-beans which had been watered with a decoction of arsenic faded in the course of a few hours; they then began to turn yellow, and on the third day were dead. A lilac was also killed by having arsenic introduced into a slit in one of its branches. Mercury, under the form of corrosive sublimate, produced the same effects as arsenic; but when used as quicksilver, no results were observed. Vegetable poisons have been proved to be equally injurious to other plants as mineral ones; a solution of nux-vomica killed some kidney-beans in the course of a few hours. Prussic acid had the same effect in the course of a day, and deadly nightshade in about four days; while spirit of wine killed the plant to which it was administered in a few hours.

Such is a rapid glance at the more prominent points of a subject which would require as many volumes for its full explanation as we have devoted pages. Our descriptions, imperfect as they are, may serve, however, the useful purpose of directing the attention of many to an inexhaustible field of inquiry, and of the purest and most delightful recreation. The study of nature is open to every one, whatever his means or circumstances. The objects of pursuit are above, beneath, and around us; they are ever fresh and enticing; and we feel that we are as far from having exhausted their wonders to-day as we were twenty years ago.

'Not a plant, a leaf, a flower, but contains A folio volume. We may read, and read, And read again, and still find something new— Something to please, something to instruct, Even in the noisome weed.'





NSTANCES of children having been left by accident or by unnatural parents to perish in solitary places, are unhappily to be met with in various eras of social history. Sometimes the infants thus exposed have, by some extraordinary means, been preserved, and have lived in a

savage condition till found by chance and brought within the pale of civilisation. It has occasionally happened that beasts usually remarkable for ferocity have nurtured them until strong enough to subsist upon roots, berries, and other fruits. Children found under such circumstances have always been regarded with interest. Though painful to the last degree to behold a human being possessing all the characteristics of a wild beast, yet it has been pleasing and instructive to watch the gradual development of their faculties, and the growth of their moral sentiments. It is our purpose in this paper to record some of the most prominent of these cases, detailing the more interesting at length. Many accounts of wild children—for example, that of Valentine and Orson—are doubtless fabulous: it has been our care, however, to select such as are well authenticated.

There is no instance on record which excited more curiosity, especially in England, than that of a child who was known as

PETER THE WILD BOY.

At the beginning of the last century, a great sensation was created by the accidental finding of a wild boy in a German forest, to whom No. 16.

the above name was afterwards given. The earliest account of him is to be found in a letter from the Hanoverian correspondent of the St James's Evening Post, published December 14, 1725. 'The intendant of the house of correction at Zell,' says the writer, 'has brought a boy to Hanover, supposed to be about fifteen years of age. who was found some time ago in a wood near Hamelin, some twenty miles hence. He was walking on his hands and feet, climbing up trees like a squirrel, and feeding upon grass and moss of trees.' The young savage was brought to George I., who was at that time residing in Hanover. The king was at dinner, and some food was offered the youth, which he rejected. His majesty then ordered him such meat as he liked best; and raw food having been brought, he devoured it with a relish. As he was unable to speak, it was impossible to learn how he was first abandoned in the woods, and by what means he existed. Great care was taken of the boy by order of the king; but, despite the vigilance of those who had charge of him, he escaped in less than a month to the woods. Every species of restraint had been evidently irksome to him, and he availed himself of the first opportunity of freedom that occurred. The woods in the neighbourhood of Hanover were diligently searched, and at length he was discovered hiding in a tree. The boldest of his pursuers were unable to reach him, for as fast as they attempted to climb, he pushed them down, so great was his strength. As a last resource, they sawed down the tree; luckily, it fell without hurting its occupant, and he was once more captured.

Early in the following year (1726) George I. returned to England, and Peter was brought over also. His appearance in London excited intense curiosity. The public papers teemed with notices of his conduct and appearance. On arriving at the palace, a suit of blue clothes was prepared for him; but he seemed very uneasy at wearing apparel of any sort, and it was only restraint that would induce him to wear it. Various colours and descriptions of costume were meantime provided, and at length his taste appeared to be gratified by a strange dress, thus described by a correspondent to an Edinburgh newspaper, April 12, 1726: 'The wild youth is dressed in green, lined with red, and has scarlet stockings.' By the same account, we find that he had been taught to abandon the use of his hands in walking, and to move about in an erect posture. 'He walks upright,' says the same authority, 'and has begun to sit for his picture.' On his first arrival, no inducements could persuade him to lie in a bed, and he would only sleep

in a corner of a room.

When in presence of the court, Peter always took most notice of the king, and of the princess his daughter. The scene was so novel to him, and he so strange an object to those who saw him, that many ludicrous scenes took place, which are humorously related by Dean Swift in his amusing account 'of the wonderful

wild man that was nursed in the woods of Germany by a wild beast, hunted, and taken in toils; how he behaved himself like a dumb creature, and is a Christian like one of us, being called Peter; and how he was brought to court all in green, to the great astonishment of the quality and gentry, 1726. From the droll character of the dean, he may be suspected of having overdrawn his account of the wild boy; but we have carefully compared it with the current newspapers of the time, and find that in the main particulars he is correct.

It appears that, after residing many months within the pale of civilisation, the boy was unable to articulate words. He expressed pleasure by neighing like a horse, and imitated other animal sounds. The king placed him under the tuition of the celebrated physician of that day, Dr Arbuthnot, by whose instructions, it was hoped, the boy would, after a time, be enabled to express himself in words. On the 5th July 1726 he was baptised, at the doctor's house in

Burlington Gardens, by the name of 'Peter.'

All attempts to teach this boy to speak were unavailing; and it was several years before his habits were at all conformable to civilised society. Finding this impracticable, the king caused a contract to be made with a farmer in Hertfordshire, with whom he was sent to reside, and who put him to school; but without any visible improvement. Instead of eating the food provided at the farm table, he preferred raw vegetables, particularly cabbage leaves; though he was not long in acquiring a taste for wine and spirits. His habits were far from steady; he was constantly running away from home, and cost his protector some trouble in reclaiming him. On one of these excursions, he was arrested, on suspicion of being a spy from the Scottish Pretender, whose army was then invading England. As he was unable to speak, the people supposed him obstinate, and threatened him with punishment for his contumacy; but a lady who had seen him in London acquainted them with the character of their prisoner, and directed them where to send him. In these excursions he used to live on raw herbage, berries, and young tender roots of trees. He took great delight in climbing trees, and in being in the open air when the weather was fine; but in winter, seldom stirred from before the fire.

After twelve years' residence in Hertfordshire, Peter was removed to the care of another farmer in Norfolk, where he resided during the rest of his life. In the beginning of June 1782, Lord Monboddo, the author of Ancient Metaphysics, visited the half-reclaimed 'boy,' for by that title he was designated even in his old age. He then resided at a farmhouse called Broadway, within about a mile of Berkhamstead. The pension which George I. had granted was continued by his successors, George II. and George III. 'He is,' says his lordship, 'low of stature, not exceeding five feet three inches; and though he must now be about seventy years of age,

he has a fresh, healthy look. He wears his beard. His face is not at all ugly or disagreeable; and he has a look that may be called sensible or sagacious for a savage. About twenty years ago he used to elope, and once, as I was told, he wandered as far as Norfolk; but of late he has become quite tame, and either keeps the house, or saunters about the farm. He was never mischievous, but had that gentleness of manners which is characteristic of our nature, at least till we become carnivorous, and hunters or warriors.'

Peter had always been remarkable for his personal strength; and even in his old age, the stoutest young countrymen were afraid to contend with him in athletic exercises. To the last, his passion for finery continued; and anything smooth or shining in the dress of a visitor instantly attracted his attention. 'He is,' remarked a correspondent of Lord Monboddo, 'very fond of fire, and often brings in fuel, which he would heap up as high as the fireplace would contain it, were he not prevented by his master. He will sit in the chimney corner, even in summer, while they are brewing with a very large fire, sufficient to make another person faint who sits there long. He will often amuse himself by setting five or six chairs before the fire, and seating himself on each of them by turns, as the love of variety prompts him to change his place. He is extremely good-tempered excepting in cold and gloomy weather; for he is very sensible of the change of the atmosphere. He is not easily provoked; but when made angry by any person, he would run after him, making a strange noise, with his teeth fixed into the back of his hand. I could not find that he ever did any violence in the house, excepting when he first came over, he would sometimes tear his bedclothes, to which it was long before he was reconciled. He has never, at least since his present master has known him, shewn any attention to women, and I am informed that he never did. Of the people who are about him, he is particularly attached to his master. He will often go out into the field with him and his men, and seems pleased to be employed in anything that can assist them; but he must always have some person to direct his actions, as you may judge from the following circumstance. Peter was one day engaged with his master in filling a dung-cart: the latter had occasion to go into the house, and left Peter to finish the work, which he soon accomplished. But as Peter must be employed, he saw no reason why he should not be as usefully occupied in emptying the cart as he had before been in filling it. On his master's return, he found the cart nearly emptied again, and learned a lesson by it which he never afterwards neglected.

Nothing further can be gleaned respecting 'Peter the wild boy,' except that he did not long survive the visits of Lord Monboddo and his friend. He died at Broadway farm in February 1786, at

the supposed age of seventy-three.

More interesting than the history of Peter the wild boy, is that of

MADEMOISELLE LEBLANC.

One evening in the autumn of 1731, the villagers of Soigny, near Châlons, in the north-east of France, were engaged in a little festival, or ducasse, when their merriment was interrupted by the sudden appearance of a wild animal in human form. Its hair was long, and floated over its shoulders. The rest of the form was black, and nearly naked, and in the hand was wielded a short thick club. The terrified peasants mistook it for an evil spirit, and not daring to attack it themselves, let loose a huge dog, having a collar surrounded with iron spikes, which they kept for the protection of the village against marauders. The strange figure, so far from flying, stood at bay, and awaited the attack of its assailant without a sign of fear. The dog, furiously set on by the peasants, made a sudden spring at the intruder's throat; but one violent and dexterously dealt blow from the cudgel laid the beast dead on the spot. The wild creature then turned, crossed the fields at a rapid pace, and, darting into the forest whence it had at first emerged, climbed a tree with the activity of a squirrel. The villagers were too frightened to follow it, and all traces of the alarming visitor were lost for several days.

Meanwhile the proprietor, or seigneur, of the estate of which Soigny formed a part, having heard of the adventure, caused search to be made in every part of the wood; but without effect. In about a week, however, one of his servants perceived in the orchard of the château during the night a strange-looking figure mounted on a well-laden apple-tree. The domestic, having more courage than the villagers, approached the tree stealthily; but ere he could reach it, the creature sprang into another, and passing from branch to branch, and from tree to tree, at length escaped from the orchard, and fled to the summit of a high tree in a neighbouring grove. The servant awoke his master, who instantly arose, ordered up all his household, and sent one to the village to desire the assistance of some of the peasants. They all assembled at the foot of the tree, determined to prevent the escape of this singular being, which made every effort to conceal itself amidst the foliage, though without

being able wholly to escape observation.

The villagers at once recognised it as the 'evil spirit' who had killed their dog, while the Seigneur de Soigny was able to distinguish that the creature resembled a young girl, and explained, to quiet the fears of the peasants, that she was in all probability some unhappy maniac who had escaped from confinement, and whom thirst (for the weather was oppressively warm) had driven from her haunts in the forests.

They continued to watch all that night and part of the following day, when Madame de Soigny proposed that a pail of water should be placed at the foot of the tree, and that the people should retire,

so as to induce the maniac to descend. The stratagem succeeded. After some hesitation the creature came down, and eagerly approached the pail to drink, which she did like a horse—plunging her face into the water. The bystanders immediately rushed forward to secure her; but did not without much difficulty. Both her fingers and toes were armed with long and sharp nails, and she used them with great address and perseverance against her assailants; but after some trouble, they captured and conveyed her to the château.

She was taken into the kitchen. It happened that the cook was preparing some fowls for the spit; and on seeing them, the girl broke away from her captors, seized, and, though raw, devoured them with avidity. It was evident, from the quantity she ate and the eagerness with which she swallowed it, that she had not tasted food for a long time. Her appetite once satisfied, she looked around, and without betraying any lively signs of curiosity at the surrounding objects, evinced by her actions and countenance that they were quite strange to her. She appeared to be from twelve to thirteen years of age, and the blackness of her skin arose partly from constant exposure, and partly from dirt. She uttered no articulate sounds, but occasionally made a loud and unpleasant noise with her throat.

Monsieur de Soigny and his wife were for some time at a loss to know what to do with their extraordinary guest. During the rest of the day, she manifested the utmost impatience at the restraint she was placed under, and shewed every desire to escape to the forest. At night, she refused to eat the food which was offered her, because, probably, it had been cooked; and could not by any inducement be persuaded to lie on a bed. All attempts to clothe

her were equally useless.

By dint of management, however, and constant attention from Madame de Soigny and her household, the young wild girl became gradually reconciled to her new state. Her repugnance to clothing and to dressed food was gradually overcome, and after the lapse of a month, it was found practicable to allow her to range about the château unattended; for her desire to escape appeared to have left her. In a little time longer, it was thought advisable to take her out of doors; for the sudden and complete change in her mode of life was injuring her health. This was rather a hazardous experiment, and her host took care to be well attended while accompanying her. The moment she got into the fields, she set off, running with a speed which was truly astonishing, and not one of the party could keep up with her on foot; but De Soigny being on horseback, managed to keep her within sight. After a time, she came to the brink of a small lake. Here she stopped, and, divesting herself of her clothes, plunged into the water. Her host began to dread she had endeavoured to escape from him by self-destruction;

but on arriving at the pond, he was gratified to find her swimming about with the greatest ease and dexterity. Soon, however, his fears were again awakened, for she dived and remained under water so long, that he gave her up for lost. He was in the act of preparing himself for an attempt to save her, when to his relief she again appeared on the surface, gracefully shaking the water from her long hair. As she approached the shore, something was perceived in her mouth which glistened in the sun; and on coming out of the water, De Soigny was astonished to find that, during her long dive, she had employed herself in catching a fish, which she devoured on the shore. Having resumed her apparel, she returned home peaceably with the domestics, whom they met on their way back.

It was long before the girl could be taught to make articulate sounds, which was the more singular, as there was scarcely any of the noises peculiar to a forest which she could not imitate. She occasionally amused her new companions by copying the cries of wild animals and of birds so exactly, that there was no difficulty in recognising the beast or bird she was imitating. The song of the nightingale, however, was beyond her powers, for she never attempted to imitate that. From all these facts, it was concluded that she was not, as at first conjectured, an escaped maniac, but some unfortunate being who had been abandoned in infancy, and had managed to subsist in the woods in a perfect state of nature.

Great pains were taken to teach her to speak, and after much perseverance, they were crowned with success. It was noticed that, as she improved in speaking, the feelings and ideas belonging to her early habits left her; and it was unfortunate that, in proportion as her ability to communicate her early history increased, new feelings and new mental resources impaired her memory of her old way of life. Still some of the most important facts connected with her former existence she retained; the most striking and interesting of

them being the one which led to her capture.

All that she could remember, when able to speak well enough to be understood, was, that she had lived in the woods as long as her memory could trace, with, up to a very recent period, a companion about her own age, supposed to have been a sister. Of her parents, her recollections were extremely indistinct. The idea she communicated regarding them was something like this: That they lived near the sea-shore, and collected sea-weed for manure. In the winter, she and her companion covered themselves with the skin of some animal they had previously slain for food; but in the summer, they had no other covering than a girdle. To this she suspended the only weapon she ever possessed—the short strong cudgel with which she so promptly slew the village watch-dog. In speaking of this cudgel, she invariably applied to it the word which signifies a wild boar's snout (boutor), to which in shape it had some remote

resemblance. It was to her an important weapon, for with it she killed such wild animals as afforded her sustenance. One remarkable but not very pleasing trait in her past history was her fondness for blood, and particularly that of hares. Whenever she caught a hare, she did not kill it at once, but opening a vein with her sharp nails, sucked the blood and threw away the carcass. This fondness for hares' blood did not wholly leave her in after-life.

Of her companion she remembered nothing except her death. They were swimming together, as near as could be understood, in the river Marne (which gives the name to the department in which the wood of Soigny is situated), when a shot from the gun of a sportsman-who perhaps mistook them for water-fowl-passed close to them. They instantly dived, and having swam for some distance under water, escaped into a part of the forest which was supposed to have been near to some village. Here they happened to find something (whether a chaplet or string of beads, could not be sufficiently made out), which each wished to possess. In the struggle that ensued, the sister inflicted a sharp blow on the wild girl's arm, which was returned on the head with a stroke from the 'boutoir,' with so much violence, that she became, in the words of the narrator, 'all red.' This excited her sorrow, and she ran off to seek some remedy. It was difficult to make out the nature of the intended remedy; still it was clear that some curative means was known to the young savage; but whether gum obtained from a tree, or the skin of a frog bound to the wound with strips of bark, could not, from the confused nature of the recital, be ascertained. Be that as it may, on her return to the spot where she had left her sister weltering in blood, she could nowhere find her. Her grief was now redoubled, and she sought every part of the wood in vain; nor did she relax her search till coming suddenly upon the villagers at Soigny, whither she had wandered in the hope of quenching her thirst. The rest of her story is known. Her companion was never heard of more; and it was thought that she must have been dragged away by a wolf to his den, and there devoured. The accident happened, as near as could be computed, about three days before the capture of the survivor near the château.

In a very few months the fame of Monsieur de Soigny's strange inmate spread to Châlons, and thence to Paris. De Choiseul, bishop of that diocese, went expressly to Soigny to see her, and inquire into every particular concerning her. The result was, that he caused her to be removed into a convent. It must be owned that the inhabitants of the château were not displeased at the change. The wild girl, despite her improvement, cost them much fear and anxiety. Her temper was ungovernable and easily roused. especially when within sight of, or when spoken to by, any of the male species, for whom she from the first entertained a decided aversion. This was the chief reason for the bishop recommending

her to be transferred to a convent, where none of the male sex would

cross her path to vex her.

Once within the walls of her new abode, the wild girl was immediately baptised, but by what Christian name we have not been able to ascertain, the only title given to her from that period having been Mademoiselle Leblanc. The secluded nature of the place had no effect in taming her wild temper, so that low diet and frequent bleedings were resorted to. This treatment not only had a most prejudicial effect upon her health, but renewed her desire to return to the woods. Indeed, it was remarked that the more she was subjected to privation and restraint, the more forcibly her savage propensities returned. On one occasion, she shewed that her thirst for living animals had not wholly left her. A young lady, of a very blooming and sanguine complexion, who resided at Châlons, had a great curiosity to see her, and was seated at dinner when she was introduced. There happened to be a chicken at table, and Mademoiselle Leblanc's eyes appearing wild and excited, the young lady offered her a wing; but the girl refused it, and trembling with excitement, said with savage simplicity: 'No, no, it is not that; it is you I want.' As she said these words, she appeared so very much inclined to seize the young lady, that her attendant removed her by force.

During the confinement of the wild girl in the convent, the queen of Poland passed through Châlons on her way from Paris, on purpose to see her. Her majesty had the bad taste to order a sort of exhibition, in which the girl performed all her savage tricks; she was made to howl as she was wont in the forest, and a live hare was actually brought her to suck to death. This exhibition had nearly terminated fatally, on account of her invincible dislike to men. One of the queen's officers was silly enough to make some jesting approach to her. In an instant she seized him by the throat, and would assuredly have strangled him, but for the interference of the

bystanders.

After having remained some years in the convent, she became an object of such great curiosity to the Parisians, that M. de la Condamine, the celebrated member of the Academy of Sciences, was commissioned to make a journey to Châlons to inquire into the particulars of the wild girl's life. On seeing her, and hearing her story, he determined to remove her to Paris for the purpose of placing her in some religious house in that city. On arriving, however, it was found that her health was so severely impaired, that the discipline of a monastic institution would be far from beneficial. Condamine, therefore, having succeeded in raising by subscription a fund for her support, provided an asylum for her near Paris, and proper persons to attend her. Towards the latter portion of her existence, few traces of the savage state in which she was found in Soigny remained; at all events, if any existed, the ill health in No. 16.

which she spent the latter days of her life prevented her from manifesting them. She died at Paris in the year 1780, forty-nine years after her capture by Monsieur de Soigny, and in about the sixty-second year of her age.

VICTOR, THE SAVAGE OF AVEYRON.

Towards the end of the year 1798, a child who appeared to be about eleven or twelve years of age, and who had several times before been seen in the woods of Caune, in France, seeking acorns and roots, on which he subsisted, was caught by three sportsmen, who seized him at the moment he was climbing a tree to avoid them. They carried him to a neighbouring village, where he was placed under the care of an old woman, from whom he, however, found means to escape before the end of the week, and fled to the mountains, where he wandered about during the winter, which was uncommonly severe, without any clothing but a ragged shirt. At night he retired to solitary places, but in the day approached nearer the houses and villages. He thus passed a roving life, till at length he voluntarily took refuge in a house in the canton of St Sernin. After being kept there two or three days, he was sent to the hospital of St Affrique, whence he was removed to Rodez, where he remained several months. During his abode in these different places, he always seemed to be wild, impatient of restraint, and capricious, and constantly intent on getting away.

How he was originally abandoned, no one ever discovered: but from certain scars on various parts of his body, he was thought to have escaped from the terrors of the Revolution, during which so many cruelties were perpetrated. From the testimony of the country-people who lived near the woods in which he was found. he must have passed in absolute solitude seven years out of the twelve, which was supposed to be his age when caught in the woods of Caune. When he was first taken into society he lived on acorns, potatoes, and raw chestnuts, eating husks and all. In spite of the utmost vigilance, he was frequently near escaping, and at first exhibited great unwillingness to lie in a bed. His eyes were without steadiness and expression, wandering from one object to another; and his voice was imperfect, for he could utter only a guttural and monotonous sound. He seemed to be alike indifferent to the smell of the most delicious perfumes and the most fetid exhalations; and his sense of feeling was limited to those mechanical functions occasioned by the dread of objects that might be in

his way.

But despite all these disadvantages, the young savage was by no means destitute of intelligence. During an intercourse of six weeks with society, he had learned to prepare his food with a great degree of care and attention. M. Bonaterre informs us that, during his

stay at Rodez, his employment was shelling kidney-beans, and that greater discernment could not have been shewn by a person the most accustomed to the employment. As soon as the pods were brought him, he fetched a kettle, and arranged his materials in the middle of the apartment in the most commodious manner possible, placing the kettle on his right hand, and the beans on his left. The shells he opened, one after the other, with admirable dexterity, putting the good grains into the kettle, and throwing away the bad; and if any grain happened to escape him, he took it up and placed it with the others. He formed a separate heap of the empty shells; and when his work was finished, he filled the kettle with water, and placed it on the fire, on which he threw the empty husks, to increase the heat.

In the year 1700 he was removed to Paris, and placed in the deaf and dumb institution, under the care of Madame Guerin and the superintendence of M. Itard, physician to the asylum. Beneficial results, from M. Itard's judicious treatment in exciting the dormant faculties of the strange patient, shewed themselves in three months' time. The touch by that time appeared sensible to the impression of all bodies, whether warm or cold, smooth or rough, soft or hard. The sense of smell was improved in a similar way, and the least irritation now excited sneezing. From the horror with which he was seized the first time this happened, it was presumed that it was a thing altogether new to him. The sense of taste was improved in a still greater degree. The articles of food on which he subsisted for some time after his arrival in Paris were excessively disgusting: he dragged them about his room, and ate them out of his hand, besmeared with filth. So great was the change which had taken place in this respect, that he now threw away the contents of his plate if any particle of dust or dirt had fallen upon it; and after he had broken his walnuts with his foot, he cleaned them in the most careful manner.

His new habits, and the tenderness that was shewn him, at length began to inspire the youth with a fondness for his new situation. He likewise conceived a lively attachment for his governess, which he would sometimes testify in the most affectionate manner. He could never leave her without evident uneasiness, nor meet her again without expressing his satisfaction. Once after he had slipped from her in the streets, on again seeing her he burst into tears. For several hours he appeared much dejected, and Madame Guerin having then gently reproached him, his eyes again overflowed with tears. As in all similar cases, the endeavours to excite the faculty of speech were almost futile, and never advanced him beyond the capability of uttering a few exclamations and unimportant words. Neither did his sense of hearing improve much.

Some traits this boy exhibited were amusing. 'When fatigued,' says a contemporary account, 'with the length of the visits of

inquisitive strangers, he dismisses them with more frankness than politeness, presenting to each, but without an air of contempt, their cane, gloves, and hat, then pushing them gently towards the door, which he shuts after them with great violence. This kind of language Victor understands, when employed by others, with the same facility as he uses it himself; and his readiness in this respect is truly astonishing, for it requires no previous instruction to make him comprehend the meaning of signs which he has never seen before.'

CASPAR HAUSER.

Of all the cases of abandoned children, none ever created a greater sensation than that of a youth who was left at the gate of the

city of Nuremberg, in Germany, so recently as 1828.

On the Whit-Monday, which happened in that year on the 26th May, a citizen who lived at Unschlitt Place, near the little frequented Haller gate of Nuremberg, was loitering before his door between four and five o'clock in the afternoon, when he remarked at a little distance a young man in a peasant's dress. He was standing in the singular posture of a person endeavouring to move forward, without being fully able either to stand upright, or to govern the movement of his legs. On approaching, this singular stranger held out a letter directed to the captain of the 4th squadron of the 6th Regiment of Bavarian Light Horse. As this person lived near to the new gate, the citizen assisted the crippled youth to his house. On the door being opened, and the servant inquiring the applicant's business, it was evident that he did not comprehend the inquiry. His own language was little else than unintelligible sounds, mixed with tears and moans; but, with difficulty, the following words were made out: 'Reuta wähn, wie mei votta wähn is' ('I will be a rider or trooper, as my father was'). He was taken for a kind of savage; and as the captain was from home, he was conducted to the stable, where he stretched himself on the straw, and soon fell into a profound sleep. Upon the return of the captain, it was with great difficulty that he could be awakened. When fully conscious, he gazed intently on the officer's glittering uniform, which he seemed to regard with childish satisfaction, and instantly groaned out 'Reuta,' &c. The captain then read the letter, which was from an unknown hand, wishing that the youth should be received into the captain's troop of light horse. It was written in German; but enclosed was a memorandum in Latin, which the writer of the letter declared he had received when the boy, then a baby, was left at his house on the 7th of October The memorandum ran thus: 'The child is already baptised. You must give him a surname yourself. You must educate the child. His father was one of the light horse. When he is seventeen years old, send him to Nuremberg to the 6th Regiment of Light

Horse, for there his father also was. I ask for his education until he is seventeen years old. He was born on the 30th April 1812. I am

a poor girl, and cannot support him. His father is dead.'

Neither of the epistle nor the enclosure could the captain make anything, and consequently handed his extraordinary visitor over to the police, which was done by about eight o'clock in the evening. When in the guard-room, in which were several inferior magistrates and police soldiers, he betrayed neither fear, confusion, nor astonishment. He continually cried, and pointed to his tottering feet; and this, joined to his childish demeanour, excited the pity of the officials. A soldier brought him a piece of meat and some beer, but he rejected them with abhorrence, partaking simply of bread and water, which he appeared to do with a relish. The usual official questions of 'What is your name? Whence came you? Produce your passport?' were put to the youth in vain. The magistrates began to suspect that he was playing a part, and this suspicion was soon greatly confirmed. A bystander proposed trying if he could write; and pen, ink, and paper were placed before him, which appeared to give him pleasure. He took the pen in his hand, by no means awkwardly, and, to the astonishment of the spectators, began to write! He slowly and legibly traced the words 'Kaspar Hauser.'
All was doubt and uncertainty. It was doubtful whether he ought to be treated as an idiot or an impostor. However, for the present, he was removed to the place appropriated to rogues and vagabonds-a tower near the guard-house. During this short way he sank down, groaning at almost every step. Walking seemed to be not only painful, but a motion with which he was quite unacquainted. Soon after entering the small apartment allotted to him, he lay down on a straw-bed, and slept soundly.

A close scrutiny of this strange being's attire increased the astonishment. It consisted of a peasant's jacket over a coarse shirt, a groom's pantaloons, and a white handkerchief marked 'K. H.' The contents of his pockets created the greatest surprise. They consisted of coloured rags, a key, a paper of gold sand, a small horn rosary, and several religious tracts. An examination of his person presented new grounds for surprise. The soles of his feet were as soft as the palms of his hands; but were covered all over with blisters, which fully accounted for the pain which walking seemed to give him. His gait was that of a child learning to walk in leading-strings; indeed he could not walk at all without assistance. To account for this, his knees were attentively examined, when it was found that the joint, instead of being a protuberance when the leg was straightened, formed a sort of hole or depression; while at the back, his hams so nearly touched the ground, that a common

playing-card could scarcely be thrust between.

After a time, Caspar was no longer kept in the tower, but was admitted amongst the family of the prison-keeper, Hiltel, of whose

children he seemed very fond. About a fortnight after his arrival. he was visited by a young college professor, Daumer, who eventually, with the concurrence of the city authorities, took Caspar to his own home to educate him. The professor soon discovered that his mental powers only required attention to become cultivated. He soon was able to speak intelligibly; and the first use to which he put his new accomplishment, was to make a deposition before the burgomaster of Nuremberg. Not to cause him embarrassment, however, Mr Binder, the burgomaster, abandoned legal forms, and had Caspar to his house, so as to get him to converse freely, and without restriction, concerning his previous history. From these conversations he drew up a document, of which we give an abridgment. Caspar declared that he knew not who he was, nor where his home is. As long as he can recollect, he had constantly lived in a sort of hole, which he sometimes called a cage, where he always sat upon the ground, with his back supported in an erect posture (this was fully corroborated by the state of his knees). The only human being he had ever seen, up to the time of his arrival in Nuremberg. was 'the man,' as he said, 'with whom I have always been;' whose face he had never seen. He knew no difference between day and night; but whenever he awoke from sleep, he found a loaf of bread and a pitcher of water beside him. Shortly before his removal, 'the man' placed a small table over his feet, and spread something white upon it (paper), he put a kind of stick between his fingers (proved to have been a lead pencil), and guided his hand in making black marks, which pleased him very much. The man came every day to guide his hand; and by imitating the marks thus made, after the man was gone, Caspar learned, it would seem, to write his name. As to speaking, all he was ever taught to say was 'Reuta,' &c. Finally, the man came one day, placed his hands over Caspar's shoulders, and carried him on his back out of his prison, and made him try to walk; but 'it became night'—that is, he fainted with the effort; and at last he brought him to the gate of Nuremberg.

This extraordinary account increased the mystery. The story of Caspar spread not only over Germany, but throughout Europe. Many thought him an impostor. He was examined by the faculty, by law-officers, and by every competent person who imagined they could find a clue to the mystery. Meanwhile he continued under the tutorship of Professor Daumer, and made very great improvement; though his new state of existence was extremely distasteful to him, and he longed to go back to 'the man with whom he had always been.' He suffered from headache. The operation of his senses, from their extreme acuteness, gave him pain rather than pleasure. He soon learned to talk like a child, for his memory was very good. As an instance of it, Dr Osterhausen, an eminent physician, gave him a nosegay, naming the different flowers: several days afterwards, other flowers were brought him, and all of

the same kind as those which composed the former nosegay he named correctly. At an early stage of instruction, he exhibited a great love of order, and was extremely obedient. In short, he in less than a year became nearly reconciled to his new position, and was

allowed to go about with little restraint.

On Saturday, 17th October, Caspar was the subject of an extraordinary and nearly fatal event. He was accustomed, daily between eleven and twelve, to leave Professor Daumer's house to attend a ciphering class; but on the above day, not feeling well, he was desired to remain at home, while his host went out to take a walk. A little after twelve, Daumer's sister was sweeping the house, when she observed on the stairs several spots of blood and bloody footsteps. These marks she traced along the passage to a closet, and there, to her horror, beheld a large quantity of clotted blood. She instantly called her mother. In great alarm, they sought Caspar in his chamber, but he was not to be found either there or in any other part of the house. The marks of blood being more carefully traced, were found to lead to a cellar door. This was opened, and after a time Caspar was found within, to all appearance dead, with a large wound across his forehead. The servant-maid and the son of the landlord had now joined them, and Caspar was removed to his chamber. He appeared to breathe, and presently gave a deep groan, saying with difficulty: 'Man! man!-mother tell professorcloset; he could say no more, for he was seized with a strong ague; after which he lay senseless for forty-eight hours. In his delirium, he murmured at various times: 'Man came!-don't kill me—I love all men—do no one anything. Man, I love you too—don't kill—why man kill?' He was assiduously attended by the medical officer of the city jurisdiction, and under his hands gradually recovered. When strong enough, the judicial authorities caused him to be examined as to his misfortune. From his deposition,* it appears that, while in the closet, to which he had occasion to retire, he heard footsteps softly treading the passage, and presently the head of a person masked appeared. In an instant he received a severe blow on the forehead, which felled him to the ground: he fainted, and did not completely recover his senses till found in the cellar. How he got there, he was unable to remember correctly, but thought that he must have been left for dead; and, coming to a sort of half-consciousness, had crawled thither, partly from fright, and partly from having mistaken his way to Mrs Daumer's chamber.

This new circumstance redoubled public curiosity respecting Hauser. Some deep and diabolical mystery hung over him. It was evident that those who sent him to Nuremberg had been disappointed in his not becoming at once absorbed in the ranks of the

^{*} It may be well to observe, that all the depositions respecting this extraordinary case are still preserved in the police-court of Nuremberg.

army, and were afraid lest the attention of the public which he had excited would lead to the discovery of his origin. To prevent this, his murder must have been planned and attempted. These machinations were, however, on this occasion frustrated, for the wound was not so serious as to prevent his complete recovery. He resumed his studies, and pursued them with so much success, that he was not to be known in company from any other young man who had been brought up under ordinary circumstances. His temper was good,

and his manners gentle and amiable.

While with Professor Daumer, he became an object of great interest to Earl Stanhope, who wished to have the entire charge and expense of his future education. With this view, Caspar was removed by that nobleman to Anspach, and put under the care of an able schoolmaster. After a time, he was found competent to undertake an official situation, and he received the appointment of clerk in the registrar's office of the Court of Appeal. It was Lord Stanhope's plan to accustom him, whilst filling this situation, to the ordinary business of life; with the view of bringing him eventually to England, and of adopting him as his foster-son. But unhappily these benevolent intentions were frustrated, for the same mystery which shrouded his birth hung over his death. On the 14th of December 1833, Caspar Hauser, while returning from his official duties at mid-day, was accosted in the streets by a person who promised to impart to him the secret of his origin, if he would meet him in the park of Anspach Castle. Without informing his protectors of this circumstance, Hauser imprudently kept the appointment. The stranger was at his post; he took Caspar aside, and, without speaking a word, plunged a dagger into his breast, and instantly disappeared. Hauser had sufficient strength left to reach the residence of his new tutor, into whose apartment he rushed, and had just breath enough to utter two or three indistinct words, when he immediately fainted, and, after relating the circumstances of his assassination, died on the 17th of the same month. Every expedient which the police could invent was adopted to discover the murderer. but without success. The secret, which it cost so much crime to preserve, has not yet been divulged.

This history is so strange and mysterious, that its authenticity would be open to many doubts, but for the unquestionable respectability of our informant, and the notoriety of the facts at the time.





"Not a flower
But shews some touch, in freckle, streak, or stain,
Of His unrivalled pencil. He inspires
Their balmy odours, and imparts their hues,
And bathes their eyes with nectar, and includes,
In grains as countless as the sea-side sands,
The forms with which He sprinkles all the earth.
Happy who walks with Him! whom what he finds
Of flavour or of scent in fruit or flower,
Or what he views of beautiful or grand
In nature, from the broad majestic oak
To the green blade that twinkles in the sun,
Prompts with remembrance of a present God."—COWPER.

WILD-FLOWERS.



EAUTIFUL children of the woods and fields!
That bloom by mountain streamlets 'mid the heather,
Or into clusters 'neath the hazels gather—
Or where by hoary rocks you make your bields,
And sweetly flourish on through summer weather—
I love ye all!

Beautiful flowers! to me ye fresher seem
From the Almighty hand that fashioned all,
Than those that flourish by a garden-wall;
And I can image you, as in a dream,
Fair, modest maidens, nursed in hamlets small—
I love ye all!

Beautiful gems! that on the brow of earth
Are fixed as in a queenly diadem:
Though lowly ye, and most without a name,
Young hearts rejoice to see your buds come forth,
As light erewhile into the world came—
I love ye all!

Beautiful things ye are, where'er ye grow!

The wild red rose—the speedwell's peeping eyes—
Our own blue-bell—the daisy, that doth rise
Wherever sunbeams fall or winds do blow;
And thousands more, of blessed forms and dyes—
I love ye all!

Beautiful nurslings of the early dew!
Fanned in your loveliness by every breeze,
And shaded o'er by green and arching trees:
I often wish that I were one of you,
Dwelling afar upon the grassy leas—
I love ye all!

Beautiful watchers! day and night ye wake!

The evening-star grows dim and fades away,
And morning comes and goes, and then the day
Within the arms of night its rest doth take;
But ye are watchful wheresoe'er we stray—
I love ye all!

Beautiful objects of the wild-bee's love!

The wild-bird joys your opening bloom to see,
And in your native woods and wilds to be.
All hearts, to Nature true, ye strangely move;
Ye are so passing fair—so passing free—

I love ye all!

Beautiful children of the glen and dell—
The dingle deep—the moorland stretching wide,
And of the mossy fountain's sedgy side!
Ye o'er my heart have thrown a lovesome spell;
And though the worldling, scorning, may deride—
I love ye all!

-NICOLL

LET US GO TO THE WOODS.

LET us go to the woods—'tis a bright sunny day:
They are mowing the grass, and at work with the hay.
Come over the meadow and scent the fresh air,
For the pure mountain breezes are everywhere.

We'll follow this winding path up to the hills, And spring with a lightsome foot over the rills. Up, up!—it grows sweeter the higher we get, With the flowers of the season that linger here yet. Nay, pause not to gaze at the landscape now; It is finer when seen from the high hill's brow. We will gather all curious flowers as we go; The sweet and the scentless, and those that bend low; The pale and the gaudy, the tiny, the tall, From the vine, from the shrub, we will gather them all.

Now here's the Clematis, all graceful and fair; You may set it like pearls in the folds of your hair. And if for your bosom you'd have a bouquet, Here's the Meadow-pink sweet, and the Touch-me-not gay. Here's the full-blown Azalea, perfuming the air, Here's the Cardinal-flower, that a princess might wear. And the wild mountain Phlox, pink and purple and blue, And Star-flowers both of white and of golden hue. And here's a bright blossom, a gay one indeed, Our mountain-maids name it the Butterfly-weed; So gorgeous its colours, one scarcely can tell If the flower or the insect in beauty excel.

Here's the low dwarf Acacia, that droops as it grows, And its leaves, as you gather them, tremble and close. And near us, I know by her breath on the gale, Is the tall yellow Primrose, so pretty and pale.

Here's the Pigeon-pea, fit for a fairy's bowers, And the purple Thrift, straightest and primmest of flowers. Here is Privet, no prettier shrub have we met; And the Midsummer-daisy is hiding here yet.

But stay—we are now on the high hill's brow!
How bright lie the fields in the sunlight below!
Do you see those white chimneys that peep o'er the grove?
'Tis your own little cottage, the home that you love:
Let us go by the fields where the Chinquapins are,
And through the long lane where the Chestnuts hang fair,
They are scarcely yet ripe, but their tender green
Looks lovely the dark clustering foliage between:
And we'll stop at the nest that we found in the wood,
And see if the blackbird hath flown with her brood:
And we'll list to the mocking-bird, wondering thereat,
Till he pauses, as if to ask: 'Who can do that?'
We will listen and gaze, for the lowliest thing
Some lesson of worth to the mind can bring.

If we read Nature's book with a serious eye, Not a leaf but some precious thought on it doth lie: And 'tis good to go forth among scenes like these, Amid music and sunshine, and flowers and trees, If 'twere only to waken the deep love that springs At the sight of all lovely and innocent things.

– Anonymous.

DAFFODILS.

FAIR daffodils, we weep to see
You haste away so soon;
As yet the early-rising sun
Has not attained his noon:
Stay, stay,
Until the hastening day
Has run
But to the even-song;
And having prayed together, we
Will go with you along!

We have short time to stay as you;
We have as short a spring;
As quick a growth to meet decay,
As you or anything;
We die,
As your hours do; and dry
Away

Like to the summer's rain,
Or as the pearls of morning dew,
Ne'er to be found again.

-HERRICK, 1648.

THE SWEET-BRIER.

OUR sweet autumnal western-scented wind Robs of its odours none so sweet a flower, In all the blooming waste it left behind, As that the sweet-brier yields it; and the shower Wets not a rose that buds in beauty's bower One half so lovely; yet it grows along The poor girl's pathway, by the poor man's door. Such are the simple folks it dwells among; And humble as the bud, so humble be the song.

I love it, for it takes its untouched stand Not in the vase that sculptors decorate;

Its sweetness all is of my native land; And e'en its fragrant leaf has not its mate Among the perfumes which the rich and great Buy from the odours of the spicy East. You love your flowers and plants, and will you hate The little four-leaved rose that I love best, That freshest will awake, and sweetest go to rest?

-Brainard.

THE FLOWER-GIRL

COME buy, come buy my mystic flowers, All ranged with due consideration, And culled in Fancy's fairy bowers, To suit each age and every station.

For those who late in life would tarry. I've Snowdrops, winter's children cold; And those who seek for wealth to marry, May buy the flaunting Marigold.

I've Ragwort, Ragged Robins too, Cheap flowers for those of low condition: For bachelors I've Buttons blue; And Crown Imperials for ambition.

For sportsmen keen, who range the lea, I've Pheasant's Eye and sprigs of Heather: For courtiers with the supple knee, I've Parasites and Prince's Feather.

For thin tall fops I keep the Rush, For peasants still am Nightshade weeding; For rakes, I've Devil-in-the-Bush, For sighing Strephons, Love-lies-bleeding.

But fairest blooms affection's hand For constancy and worth disposes, And gladly weaves at your command A wreath of Amaranths and Roses.

-Mrs Corbold.

THE YELLOW VIOLET.

WHEN beechen buds begin to swell, And woods the blue-bird's warble know, The yellow violet's modest bell Peeps from the last year's leaves below.

Ere russet fields their green resume, Sweet flower! I love in forest bare To meet thee, when thy faint perfume Alone is in the virgin air.

Of all her train, the hands of Spring
First plant thee in the watery mould,
And I have seen thee blossoming
Beside the snow-bank's edges cold.

Thy parent sun, who bade thee view
Pale skies, and chilling moisture sip,
Has bathed thee in his own bright hue,
And streaked with jet thy glowing lip.

Yet slight thy form, and low thy seat, And earthward bent thy gentle eye, Unapt the passing view to meet, When loftier flowers are flaunting nigh.

Oft, in the sunless April day,
Thy early smile has stayed my walk;
But, 'midst the gorgeous blooms of May,
I passed thee on thy humble stalk.

So they who climb to wealth, forget
The friends in darker fortunes tried;
I copied them—but I regret
That I should ape the ways of pride.

And when again the genial hour
Awakes the painted tribes of light,
I'll not o'erlook the modest flower
That made the woods of April bright.

-BRYANT.

THE DAISY.

Not worlds on worlds in phalanx deep, Need we to prove a God is here; The daisy, fresh from Nature's sleep, Tells of His hand in lines as clear.

For who but He who arched the skies, And pours the dayspring's living flood, Wondrous alike in all He tries, Could raise the daisy's purple bud!

Mould its green cup, its wiry stem, Its fringed border nicely spin,

And cut the gold-embossed gem, That, set in silver, gleams within!

And fling it, unrestrained and free,
O'er hill and dale, and desert sod,
That man, where'er he walks, may see
In every step the stamp of God.

-DR GOOD.

THE HOLLY-TREE.

O READER! hast thou ever stood to see
The holly-tree?
The eye that contemplates it well perceives
Its glossy leaves,
Ordered by an Intelligence so wise
As might confound the atheist's sophistries.

Below, a circling fence, its leaves are seen Wrinkled and keen;

No grazing cattle, through their prickly round,

Can reach to wound;

But as they grow, where no interest leaves appear

Smooth and unarmed the pointless leaves appear.

I love to view these things with curious eyes, And moralise:

And in this wisdom of the holly-tree Can emblems see

Wherewith, perchance, to make a pleasant rhyme, One which may profit in the after-time.

Thus, though abroad, perchance, I might appear Harsh and austere:

To those who on my leisure would intrude, Reserved and rude;

Gentle at home amid my friends I'd be, Like the high leaves upon the holly-tree.

And should my youth, as youth is apt, I know, Some harshness shew,

All vain asperities I, day by day,

. Would wear away;
Till the smooth temper of my age should be
Like the high leaves upon the holly-tree.

And as, when all the summer trees are seen So bright and green, The holly leaves their fadeless haes display

Less bright than they;

But when the bare and wintry woods we see, What then so cheerful as the holly-tree?

So serious should my youth appear among
The thoughtless throng;
So would I seem, amid the young and gay,
More grave than they;
That in my age as cheerful I might be
As the green winter of the holly-tree.

-Southey.

THE WEE FLOWER.

A BONNIE wee flower grew green in the wuds, Like a twinkling wee star amang the cluds; And the langer it leevit, the greener it grew, For 'twas lulled by the winds, and fed by the dew. Oh, fresh was the air where it reared its head, Wi' the radiance and odours its young leaves shed.

When the morning sun rose frae his eastern ha', This bonnie wee flower was the earliest of a' To open its cups sealed up in the dew, And spread out its leaves o' the yellow and blue.

When the winds were still, and the sun rode high, And the clear mountain stream ran wimplin' by, When the wee birds sang, and the wilderness bee Was floating awa', like a clud ower the sea, This bonnie wee flower was blooming unseen—The sweet child of summer—in its rockely green.

And when the night-clud grew dark on the plain, When the stars were out, and the moon in the wane, When the bird and the bee had gane to rest, And the dews of the night the green earth pressed, This bonnie wee flower lay smiling asleep, Like a beautiful pearl in the dark-green deep.

And when autumn came, and the summer had passed,
And the wan leaves were strewn on the swirling blast,
This bonnie wee flower grew naked and bare,
And its wee leaves shrunk in the frozen air;
Wild darnel and nettle sprang rank from the ground,
But the rose and white lilies were drooping around;
And this bonnie blue flower hung down its wee head,
And the bright morning sun flung his beams on its bed,
And the pale stars looked forth—but the wee flower was dead.

-ANDERSON.

THE LANGUAGE OF FLOWERS.

In Eastern lands they talk in flowers,
And they tell in a garland their loves and cares;
Each blossom that blooms in their garden bowers,
On its leaves a mystic language bears.

The Rose is a sign of joy and love— Young blushing love in its earliest dawn; And the mildness that suits the gentle dove, From the Myrtle's snowy flower is drawn.

Innocence shines in the Lily's bell,
Pure as the heart in its native heaven;
Fame's bright star and glory's swell,
In the glossy leaf of the Bay are given.

The silent, soft, and humble heart,
In the Violet's hidden sweetness breathes;
And the tender soul that cannot part,
A twine of Evergreen fondly wreathes.

The Cypress that daily shades the grave, Is sorrow that mourns her bitter lot; And faith that a thousand ills can brave, Speaks in thy blue leaves, Forget-me-not.

Then gather a wreath from the garden bowers, And tell the wish of thy heart in flowers.

-PERCIVAL

THE PRIMROSE.

THE milk-white blossoms of the thorn
Are waving o'er the pool,
Moved by the wind that breathes along
So sweetly and so cool.
The hawthorn clusters bloom above,
The primrose hides below,
And on the lonely passer-by
A modest glance doth throw!

The humble primrose' bonnie face I meet it everywhere; Where other flowers disdain to bloom, It comes and nestles there. Like God's own light, on every place In glory it doth fall:

There, in thy scanty mantle clad,
Thy snawie bosom sunward spread,
Thou lifts thy unassuming head
In humble guise;
But now the share uptears thy bed,
And low thou lies!

Such is the fate of artless maid, Sweet floweret of the rural shade! By love's simplicity betrayed, And guileless trust, Till she, like thee, all soiled, is laid Low i' the dust.

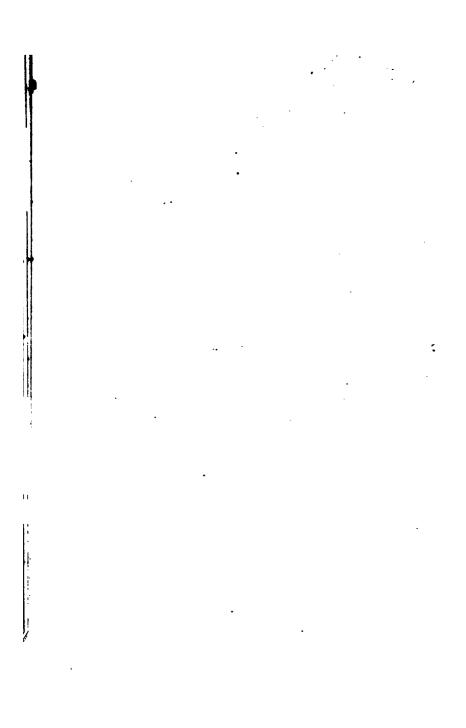
Such is the fate of simple bard,
On life's rough ocean luckless starred:
Unskilful he to note the card
Of prudent lore,
Till billows rage, and gales blow hard,
And whelm him o'er!

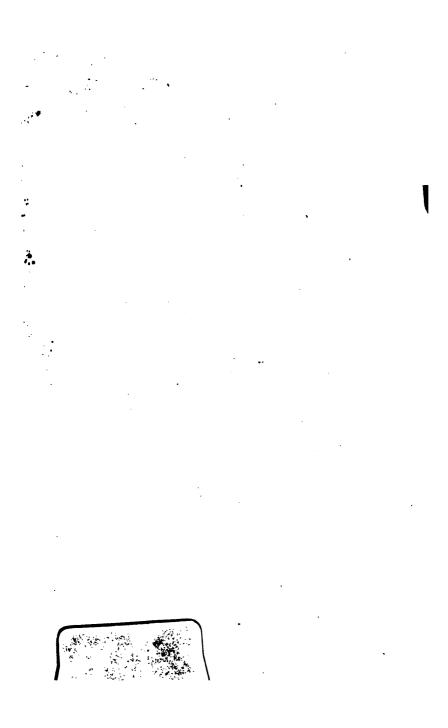
Such fate to suffering worth is given,
Who long with wants and woes has striven;
By human pride or cunning driven,
To misery's brink,
Till wrenched of every stay but Heaven,
He, ruined, sink!

Even thou who mourn'st the daisy's fate,
That fate is thine—no distant date;
Stern Ruin's ploughshare drives elate,
Full on thy bloom,
Till crushed beneath the furrow's weight,
Shall be thy doom!

-BURNS.







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